SOCIAL AND ECONOMIC STUDIES

VOL. 9, NO. 3 SEPTEMBER, 1960

Peter Newman	263	The Economic Future of British Guiana
Margaret Katzin	297	The Business of Higglering in Jamaica
M. G. Smith	332	Education and Occupational Choice in Jamaica
G. E. Cumper	355	West Indian Household Budgets

INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH
UNIVERSITY COLLEGE OF THE WEST INDIES, JAMAICA, W.I.

INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH

UNIVERSITY COLLEGE OF THE WEST INDIES

Advisory Board

Prof. W. A. Lewis (Chairman)

Prof. H. D. Huggins
Senator D. J. Judah, C.B.E.
Sir Robert Kirkwood
Sir Raymond Priestley
Prof. M. Sandmann
Mr. H. O. B. Wooding, C.B.E., Q.C.

Editorial Advisory Board

Prof. R. G. D. Allen, London School of Economics, London University.
Prof. K. E. Boulding, University of Michigan.
Prof. R. W. Firth, London School of Economics, London University.
Prof. P. Sargant Florence, C.B.E., Birmingham University.
Prof. M. Fortes, Cambridge University.
Prof. D. V. Glass, London School of Economics, London University.
Prof. H. M. Gluckman, Manchester University.
Prof. Robert Merton, Columbia University.
Prof. E. F. Nash, University of Wales.
Prof. Talcott Parsons, Harvard University.
Prof. K. E. Robinson, Institute of Commonwealth Studies, London University.
Prof. Margaret Read.
Mr. D. G. Seers, United Nations.
Prof. J. Tinbergen, Netherlands Institute of Economics, Holland.

Editor

H. D. Huggins

Assistant Editor

Mary Manning Carley

Research Staff and Associates

Director: H. D. Huggins

G. C. Abbott
Lloyd Best
E. R. Chang
Ione Marshall
Le Roy Taylor
E. P. Reubens
W. D. Voelker

The Economic Future of British Guiana

By

Peter Newman

British Guiana has just embarked on a large Government development programme, covering the years 1960 to 1964. Its details were laid before the Legislative Council late in 1959 (Sessional Paper No. 5, 1959), and the *Report* submitted in June 1959 by Mr. Kenneth Berrill, on which the Programme is based, was published in May 1960 (Sessional Paper, No. 2/1960). It is my conviction that this Programme is wrongly conceived and will, if pursued without alteration, fail to solve British Guiana's economic and social problems. In this article I shall set out briefly the reasons for my profound disagreement with the policies currently being carried out, and indicate the directions in which I believe policy should move[1].

The absence of an economic planning staff in British Guiana has meant that many of the calculations that it is needful to make in order to discuss the Programme sensibly have not yet been attempted. I have therefore had to make some rough-and-ready "operational research" computations of my own, in order to indicate the relative orders of magnitude involved. Such calculations should be repeated at a later time, with more data and more leisure; but I believe the general picture drawn to be roughly correct.

The Past Perforance of the Guianese Economy

Both the Programme and the *Report* convey the distinct impression that the rate of growth of national product in the past decade or so has been high. The *Report* says: "The decade 1948-57 saw National Product increase by over a half in real terms (5 per cent per annum)" (p. 7), while "between 1952 and 1957 the growth of output averaged 6 per cent" (p. 8). This provides one justification for assuming that "Over the next five years, 1960-64, the economy . . . [will] . . . expand at a rate of 6 per cent per annum [presumably in real terms], that is to say . . . [will] resume the fast growth of the pre-1957 period" (p. 8), (even though output was almost constant between 1957 and 1959). Since the population is growing at 3 per cent, a rate of growth of real income of 6 per cent implies a rate of growth of real income *per capita* of almost 3 per cent which would be quite satisfactory.

"Real income" can mean many things, depending upon what one is trying to measure. On one interpretation of the concept, the conclusions above are too large but not seriously incorrect. Thus Row 1 of Table 1 shows the course of Gross Domestic Product at factor cost (G.D.P.) in current prices from 1952 to 1959; in order to eliminate roughly the effect of rising prices, Row 2

shows the effect of deflating Row 1 by the Georgetown index of consumer prices (1957=100).

TABLE 1
(All figures represent millions of W.I. dollars)

	1952	1953	1954	1955	1956	1957	1958	1959
Gross domestic product at factor cost (current prices)	160	177	193	193	208	227	223	224
Gross domestic product at factor cost (1957 prices)	176	194	205	199	212	227	219	220

Sources: 1952/6, *O'Loughlin*. 1957/9, Budget Speech of Financial Secretary, January 7th, 1960.
A rough guess, based on past trends, has been made for the cost-of-living index in Georgetown 1959.

In money terms, G.D.P. grew at 7.2 per cent per annum over 1952/7, and at 4.9 per cent over 1952/9; in crude "real" terms, however, G.D.P. grew at only 5.2 per cent over 1952/7 (which is rather less than the Report's estimate) and only 3.2 per cent over 1952/9.

But is this the appropriate measure? It contains two aspects which are really irrelevant to the planning of future policy. First, it includes the terms of trade effect. Over this period, the prices that B.G. received for its exports increased considerably faster than those it had to pay for its imports, and as a result the Guianese people profited considerably. My estimate of the terms of trade (export price index/import price index) stands at 90 in 1952, and 100 in 1957, while O'Loughlin's index shows a comparable movement[2]. Now there is nothing illusory about the increase in real income which was brought about by this favourable movement of the terms of trade (which continued, incidentally, an even more favourable movement in the years 1948 to 1951). The world's demand for B.G's goods became more urgent relative to B.G's demand for the world's goods, and the terms of exchange naturally became more advantageous. But it does not follow that such a favourable movement will continue; the prospects on the world's sugar, aluminium and rice markets are not so rosy that one can confidently expect this. Indeed there seem to be cogent reasons for expecting the terms of trade to move in the reverse direction, causing a fall in real income in B.G.. Unless one can be pretty sure that one's products are due for a secular rise in price relative to import prices, prudent planning should take into account only increases in income due to increases in production alone.

The second drawback to the crude estimate of "real" G.D.P. is that it includes factor incomes which are paid abroad directly, and so do not benefit local residents. Thus a large part of the receipts from the mining sector is paid away in interest charges and profits, and never gets into the domestic income stream. A corollary of this is that reductions in mining production are not reflected to anything like the same extent by reductions in domestic incomes.

This is illustrated by the calculations of Table 2, which is an attempt to measure the movements of physical production in B.G.. I estimated the (geometric) mean production for 1953/5 and 1956/8 in each of the three main

export sectors, sugar, bauxite and rice, which together account for a third of total G.D.P.

If these sectors are weighted according to their relative contributions to G.D.P. (see *O'Loughlin*, p. 77 for the weights) then one obtains a net rate of growth of the three sectors as a whole of *minus* 1.5 per cent. This clearly overstates the case; because of the much smaller income multiplier for bauxite,

TABLE 2.
(All estimates in thousands of tons)

	1953/5 Average Production	1956/8 Average Production	Annual Rates of Growth 1953/5 to 1956/8
Sugar	243.3	284.1	5.3%
Bauxite	2339	2054	—12.2%
Rice	70.4	74.8	2.0%

Sources:
Sugar: 1952/6, *O'Loughlin*. 1957/8, *Annual Report, British Guiana*, 1958, p. 80. From O'Loughlin's figures (p. 28) it appears that the 1952/6 increase in output was due to improvements in the quality and the milling of cane, rather than to increases in cane production.
Bauxite: 1952/6 *O'Loughlin*. 1957/8 Programme, p. 33.
Rice: 1952/6 *O'Loughlin*. 1957/8. *Annual Report, British Guiana*, 1958, p. 81.

incomes in that industry did not fall nearly as fast as production. But the production figures show that anything much higher than a rate of growth of 2-3 per cent in incomes due to production alone over the period is unlikely[3].

One way of overcoming the first defect in the "real" figures above is to deflate the G.D.P. sector by sector, each with its appropriate index. This gives an implicit deflator for the whole G.D.P. which takes into account changes in the terms of trade. In order to overcome the second problem we may use national income rather than G.D.P., since this excludes net factor income paid overseas, and deflate this by the implicit G.D.P. deflator. These calculations are shown in Table 3 for 1952/7; figures are not yet available to enable 1958 and 1959 to be calculated, but since the G.D.P. stayed almost constant in money terms, it is unlikely that any increase would be shown in real terms. This would lower growth rates over 1952/9 considerably, by around a full percentage point, from the 1952/7 figures.

The detailed figures in Table 3 are largely spurious in their precision; "real" income is necessarily a vague concept. But they do show that the growth in incomes due to domestic production has barely, if at all, kept pace with the population growth of 3 per cent; and this, although better than outright stagnation (which has been the case in the last three years in B.G.), is not a particularly "impressive rate of expansion" (*Report* p. 8). It affords no warrant, *in itself*, for believing that increases in domestic incomes due to increases in domestic production — which is the variable on which economic planners should concentrate — will grow at anything like 6 per cent in the future.

TABLE 3.
(All figures in millions of W.I. dollars)

	1952	1953	1954	1955	1956	1957	Annual Rate of Growth 1952/7
GDP at factor cost in 1957 prices (deflated by sectors)	194	198	209	205	220	227	3.2%
National income at factor cost in 1957 prices (deflated by implicit deflator)	175	178	189	185	199	199	2.6%

Sources: The sector deflators are: (a) Private consumption expenditure: Cost-of-living index, Georgetown. (b) Government consumption: Govt. wage and salary index, compiled by Govt. Statistician. (c) Gross domestic investment: Composite index of local building cost index, and engineering and machinery wholesale price indexes of the U.K., compiled by Govt. Statistician. (d) Exports: as for footnote 2. (e) Imports: as for footnote 2.

These deflators enabled "real" GDP at market prices to be calculated. The implicit price deflator so obtained was used to deflate the GDP at factor cost; and then to deflate National Income.
National Income: Current figures 1952/6 from *O'Loughlin*. 1957: Financial Secretary's Office estimate.

II. The Predicted Behaviour of the Guianese Economy

(a) *Income and Production*

The predictions of the likely future behaviour of the economy of British Guiana, prepared by the Financial Secretary's Office and incorporated in the Report (p. 7), do not, to be fair, assume any changes in the terms of trade. For the most part, they are reasonable projections; forecasting the economic future, especially for small countries, is always a hazardous business and forecasts always turn out wrong. On balance, my guesses would be a little lower than the official projections of G.D.P., but the difference is slight. It is worthwhile reviewing these forecasts as a guide to the expected changes in the Guianese economy.

Let us consider the sectors in detail:

Agriculture: (i) Sugar cane. It is assumed that the production of sugar, rum, and molasses will continue to rise at the rate of 1 per cent, accomplished mainly by increased yields per acre and increased milling efficiency. Prices, as in all these calculations, are assumed to remain at their 1958 levels.

(ii) Rice farms. This estimate assumes that 75,000 additional acres of padi will be brought under cultivation, which represents an increase of acreage of the order of something over 5 per cent per annum. Although some of this will be marginal land, this will probably be compensated for by better drainage control on existing acreage. The 1956/8 average G.D.P. covered three bad years; the 1953/8 average was $10.3 million, which better represents the increase predicted, of the order of 5 per cent per annum. Of course rice is very subject to weather conditions, so that any one year may not realize the predicted level. In addition, it may prove difficult to sell all the new rice on world markets at favourable prices; but to analyse this would need a large and separate study of the world rice market, which has not yet been carried out.

TABLE 4.
(All estimates are in millions of W.I. dollars)

	GDP 1956/8 Arithmetic Average of Current Prices	Projected GDP 1964 in 1958 Prices
Agriculture:		
(i) Sugar cane	23.1	25.0
(ii) Rice farms	7.8	16.2
(iii) Coconut and other crops	7.7	9.5
(iv) Livestock	5.2	8.0
Total Agriculture	43.8	58.7
Forestry	5.2	6.5
Fishing	6.1	8.5
Mining	22.2	53.0
Processing	17.8	25.0
Manufacture	7.6	9.8
Construction	24.2	29.0
Distribution, transportation and communications	42.8	55.0
Finance, insurance, professions	7.3	9.2
Personal services, catering and entertainment	2.6	3.3
Rent of dwellings	5.6	7.0
Government	28.1	32.0
Total GDP at Factor Cost	213.2	297.0

Sources: Financial Secretary's Office. This forecast uses earlier estimates of 1957 and 1958 GDP than those incorporated in Table 1, so the 1956/8 average implied there is not the same as that used here. The annual rate of growth implied from 1957 to 1964 is 4.9%; using the GDP 1959 estimate of $224 million, the annual rate of growth implied from 1959 to 1964 is 5.8%.

(iii) The acreage is estimated to increase by 25 per cent, and so product also. This seems to ignore the fact that many of the crops have a long gestation period, so that they may not yield by 1964. I would reduce this estimate by $1 million.

(iv) Livestock production has actually fallen from $6 million in 1952. The one-third increase predicted seems high, and I would again reduce it by $1 million.

Forestry and Fishing. Assumed to grow at 5 per cent, which seems reasonable and, indeed, a little low, since some types of fishing have been expanding rapidly.

Mining. The very large increase here is due to (i) the installation of an alumina plant, scheduled to come into full operation early in 1962. The gross value of output will be $24 million by 1964; bauxite production is assumed to be stable at 2.1 million tons, of which presumably half a million tons will be processed locally into alumina. (ii) development of manganese mining, reaching total gross sales of $14 million by 1964. Gold and diamond production will be constant at around $2 million.

Processing. This is assumed to move in line with G.D.P. from cane and rice; this is not entirely reasonable, since the percentage value added in sugar-making is approximately twice that in rice milling. Since most of the increase will be from padi, rather than cane, total G.D.P. in this processing sector will not grow proportionately with cane and padi.

Manufacture. Assumed to grow at 4 per cent.

Construction. This assumes the present level of private construction, and

the future-predictable-level of public investment. Probably the heavy construction in manganese and alumina will have slowed down considerably after 1962, which may make this an over-estimate for 1962 to 1964, if nothing else takes its place.

Distribution, Transportation and Communications; Finance, Insurance and Professions; Personal Services, Catering and Entertainment. Assumed to grow at the overall rate of the previous sectors, except that only one quarter of the increase from manganese and alumina is counted, presumably because of the heavy capital charges (alumina is more highly capital intensive than bauxite), and the fact that tax holidays until after 1964 mean no increased Government revenue. Hence only a small proportion (the estimated 25 per cent) enters the domestic income stream, and so affects this "general" sector; indeed domestic incomes associated with these projects when they are in full operation may be lower than in their construction phases.

Rent of Dwellings. Assumed to rise with population, at 3 per cent.
Government. Assumed to rise with projected recurrent expenditure, less debt charges.

All such projections necessarily contain a large subjective element. I would reduce the total by a couple of million dollars, but that is insignificant. What is significant, however, is that it is a forecast of G.D.P. rather than national income. The terms of trade effect (which may well be adverse in this period) is assumed away by postulating constant prices, but the projection overstates the rise in domestic incomes due to domestic production. If, following the official estimates themselves, we allow only one quarter of the increase due to mining (and reduce the agricultural estimate by $2 million) we get a forecast addition to national income of some $60 million, compared with the 1957 level of $199 million. This is consistent with the official projection for 1964 of national income (not given in the *Report*), which forecasts $255 million. The official prediction therefore implies a rate of growth of national income between 1957 and 1964 of only 3.6 per cent; bearing in mind the hazardous nature of such estimates, it is quite on the cards that *per capita* real income will actually fall in the period to 1964. Certainly it is unlikely to rise very much; with such uncertainty in the movement of the terms of trade, the outlook is not very encouraging.

The official projections, then, seem reasonable guesses of the likely future course of the economy; what is not so reasonable is the use that the *Report* makes of them. Apart from the sole emphasis on G.D.P. rather than national income as a measure of growth, the *Report* takes a peculiar stand in its apparent assumption that the rate of growth will be 6 per cent per annum, regardless of the level of the Government's Programme. While a high rate of investment is certainly not a sufficient condition for a high rate of growth —it is all too easy to pour money down the drain on ill-considered projects —it is equally certainly a necessary condition. The higher the level of Government investment, the higher the rate of growth, provided the money is

used sensibly, and provided one has not yet reached the physical limits of one's capacity to absorb investment expenditure. The *Report* makes no serious attempt to show that British Guiana would fail to satisfy these two criteria.

The Government forecasts obviously had to assume some level of the Programme, for otherwise projections of padi acreage and so on would have no validity. What was actually needed was, however, a whole series of calculations for differing levels *and distributions* of investment, before one could conclude anything at all about the desirable level of Government borrowing. It may be, for example, that a higher level of investment would strike a patch of increasing returns; a little more money put into irrigation might enable much better income-yielding crops to be grown; and then again, maybe not. The point is that no one appears to know, because none of the relevant computations has been performed. To produce a *Report* in which the size of the programme one can afford is determined by a rate of growth which is *itself* governed by the size of programme already assumed, seems an Alice-in-Wonderland procedure; not unnaturally, it turned out that B.G. can only afford the original programme assumed in predicting the rate of growth.

Only in one place in the *Report* is there a calculation assuming different levels of income with differing Programmes. This is where the Government's tax revenue is calculated. The full computations are quoted: "If the Programme were $20 million less [than $125 million], then tax receipts in the period would be down by about $3 million. If the outlays were $40 million more, then tax receipts would be up about $5 million in the five years, and so on" (p. 20). No basis for these calculations is given. They should imply, of course, alternative programmes, with different income-generating capabilities, and therefore different revenue-yielding possibilities. One would have thought that tax revenues increased with income at an increasing rate (there is evidence for this in the past, when revenue rose by more than 150 per cent when income rose by 100 per cent, according to the *Report* (p. 16[4]). so that the lower marginal tax yields for a rise in income (12½ cents to the dollar) compared to the loss in yield for a fall (15 cents to the dollar) seem unlikely. It may be so, however; again the point is that no detailed calculations for alternative programmes, consisting of different projects, have apparently been carried out. This is one of the first duties of a competent planning staff; without such computations, policy can only flounder along in the dark[5].

(b) *Employment*

The chief trouble with poor countries is that they are poor, and need to have their income levels raised as fast as possible. This criterion often runs up against political pressure to have the number of available jobs increased, even at the expense of the future increases in income, especially since the very real debilitating effects of make-work projects are not always immedi-

ately apparent. It is my firm opinion that if, in not-too-poor tropical countries (of which British Guiana, compared to say, Indonesia, is an example) one can demonstrate that the income level is rising rapidly and that firm foundations for a modern economy are being laid, the people will accept short-to-medium run unemployment (which is not relatively so hard in a warm country with a subsistence sector as it is in a cold country without one) in return for long-run gains to them and their children. Even if some family members are unemployed, family income will often be sufficient to support everyone if incomes are rising; half the unemployed in Puerto Rico are to be found in families earning over $280 W.I. per month. It is clear that make-work projects will eventually carry the economy into a dead end and that, by then, valuable years will have been lost in re-organizing one's society for the modern world.

Nevertheless policy in British Guiana does lay stress on the importance of creating employment, and the *Report* makes some calculations on the likely increase in the number of jobs due to the Programme (pp. 13-16), whose conclusion is that "the increase in employment will make a useful contribution to the reduction [in the 1956 level] of male unemployment (p. 15), while "little change is to be expected in the proportion of women out of work" (ibid.) The most important forecast is that, between 1956 and 1964, 15,000 jobs in rich farming alone will have been created. This estimate seems rather high. The acreage reaped in 1956 (autumn crop) was 126,000 and in 1959, 135,000. From 1960 to 1964, the Report states that over 100,000 additional acres (of land for all crops) will be brought under cultivation (p. 32)[6]. [From the context it is clear that 100,000 is a suitable round figure to use for calculation]. Of these, 46,000 will be on settlement schemes which will take an estimated 2,665 families or, let us say, about 4,000 of the labour force.

Of the remaining 54,000 acres, *plus* the 9,000 acres increase from 1956 to 1959, let us suppose that 43,000 acres will be in rice (a rather high estimate). The 1956 McGale survey showed that there was a labour force of about 23,000 workers in rice, including rice processing (this is a mean of his July and September estimates). Assuming 22,000 of these to be in rice farming, the 1956 acreage gives an estimate of an average of approximately 6 acres per member of the labour force. Applying this estimate to the 43,000 acres, we get about 7,000 workers. The remaining 20,000 acres will be in home plots, pasture, and other crops, which have presumably already been accounted for by the *Report's* estimates of an additional 4,000 employed in non-rice agriculture. This gives a total of 11,000 workers on the new rice acreages since 1956; of course such calculations are exceedingly rough, but they differ from the *Report's* estimates by a factor of a half; and I have been careful to be reasonably generous in allowing for more workers.

Thus I would reduce the *Report's* estimate in rice alone by 4,000. All the projections of employment in the *Report* were obtained by "scaling up the employment appropriately" (p. 15) to the projected increases in G.D.P.

in each sector, apparently – to judge from the results – using fairly constant product/labour ratios. To examine the validity of such an assumption sector by sector would require a great deal of data, but in some sectors it seems clearly inappropriate, e.g. in sugar and fishing much of the increase in output will come from increased mechanization. As a very rough guess I would say that unemployment in 1964 will be around 40,000 (about 13,000 more than in 1956, and a rate of 17 per cent of the expected labour force), compared to the *Report's* estimate of 30,000. There will be an even higher percentage rate of female unemployment, especially since the proportion of women in the labour force will probably rise as the large numbers of young girls born after 1946 come on to the labour market. But, more importantly, it is inherent in these rural schemes that those settled will be existing farmers or the sons of farmers. It does not look as though there will be enough land available for the urban unemployed, even assuming that they would be willing to go. Unemployment rates in Georgetown and New Amsterdam were already over 20 per cent in 1956, and given the likely direction of new employment, these rates will probably climb considerably by 1964. In view of the racial distribution of the population between town and country, this could well lead to very grave social problems, especially since, as a background to all this, the level of *per capita* income will probably at best be stationary. Matters are compounded yet further by the reflection that rice is a bad user of labour, since the labour force finds itself with little to do for the greater part of the year; income per acre, moreover, is very low. The gross average return per acre on farms up to 50 acres, as shown by O'Loughlin's study (*Social and Economic Studies*, 7, June 1958, p. 128) was about $90. Out-of-pocket expenses amounted to at least $20 per acre, so that the net return was at most $70, and probably nearer $60. Hence a 6-acre farm would only yield an average family income (including subsistence rice, but not income – cash and kind – from other crops) of $420; probably $350-$400 would be nearer the mark. Again, all those computations are crude, but they indicate that the incomes involved are very low by Western standards. It is small wonder that the average peasant is heavily in debt, and that the effects of good harvests, which enable him to get his head above water occasionally, show up rapidly *via* the multiplier. Those who do make money in rice are apparently those who combine the functions of landlord, miller, shopkeeper, money lender and transport contractor; it is not impossible to get a fair income by taking a mark-up at each stage. Generally speaking, however, rice is a poor man's crop.

Thus the intended Programme is likely to solve neither the income problem nor the unemployment and underemployment problems. Since the economic limit of drainable useful land will probably be reached at the latest by 1970, it looks as though this is a road leading, not very fast, to nowhere in particular; meanwhile, population is growing at 3 per cent per annum.

III. The Detailed Programme

The brief argument set out above has shown that the Programme does not measure up to the problems involved. But where does it fall short? In size, in allocation or in both? In order to attempt an answer to these questions, we have to consider the Programme in some detail. Table 5 shows the distribution of expenditure under the old 1956/9 programme and the new, while, for comparison, the distribution of planned expenditure for the second half of the Ten Year Programme (*plus* expenditure on the Brokopondo project) in Surinam is shown (Surinam has approximately half the population of B.G., and her national income *per capita* in 1950 was similar – $300 W.I. compared with B.G.'s $287). The classification of Table 5 is more or less that of the new Programme.

A comparison of the planned Programme with the 1956/9 expenditure shows some obvious improvements. Much less is to be spent on housing, and on the "miscellaneous" group of social expenditures; more is to be allocated to industry and to education. But the most striking fact about the Programme is the increased attention paid to the agricultural sector, which was already dominant in the old programme. Over half of the total planned expenditure will be on agriculture, and most of this will be devoted to an extension of the existing rice acreage. This compares with Surinam's allocation of a quarter of her budget to the agrarian sector. The categories of agriculture, transport and communications, and housing account between them for 83 per cent of the Programme, compared with Surinam's 52 per cent of a – relatively to population – much larger programme.

Apparently the method of allocation into sectors has been the following (*Report*, pp. 29-30): Each Department was asked to submit its Departmental Programme for Development for the years 1960-1964. The total bids amounted to $260 million, which was then scaled down to the actual Programme of $110 million. The cuts were by no means uniform. Thus the agricultural sector asked for $84.8 million (excluding Credits) and was allocated $48.8 million in the *Report* (49.0 million in the Programme). Transport and Communications asked for $61.7 million and received $25.8 million in the *Report* (25.5 million in the Programme). Financial Credits wanted $36.5 million (mainly for industry), received $13.0 million in *Report* and Programme for all types of credit. Public Utilities required $15.9 million, were allotted $4.8 million. Education received most of its request ($4.1 m. to $5.0 m.) but Health was scaled down from $7.2 m. to $0.8 m. and Housing from $28.5 m. to $6.0 m. In general, the "Economic Sectors" were reduced from $187.4 million to $90.9 million (which represents 48.5 per cent of the original bids); while the "Social Sectors" were reduced from $69.5 million to $19.2 million, which is only 28.1 per cent of the amount asked for. The general principle was clear; emphasize the economic sector at the expense of the social sector. This makes sense, since economic progress has to be assured before welfare schemes can be afforded. There is little doubt that too much of the earlier

TABLE 5.

Sector	BRITISH GUIANA (millions of $W.I.) Past Expenditure 1956/59	Percentage of Programme	Planned Expenditure 1960/4	Percentage of Programme	SURINAM (millions of Surinam guilders) (1.1 guilders = $1 W.I.) Planned Expenditure 1960/4	Percentage of Programme
1. Agriculture and fishing (including sea defence, drainage and irrigation, land development and agricultural credits)	33.074	42.8	57.940	52.5	29.680	25.1
2. Transport and communications (civil aviation, roads, railways, shipping, tele-communications, postal services)	19.097	24.7	25.457	23.1	26.580	22.5
3. Forestry	0.380	0.5	0.550	0.5	4.075	3.4
4. Surveys (geological, topographical and aerial)	2.011	2.6	2.800	2.6	5.433	4.7
5. Public works and public buildings	0.493	0.6	1.300	1.2	1.525	1.3
6. Industry	1.100	1.4	4.000	3.6	8.100	6.8
7. Education	1.335	1.7	4.140	3.8	4.690	4.0
8. Health	0.642	0.8	0.893	0.8	6.555	5.5
9. Housing (including public officers' housing)	14.848	19.2	8.000	7.3	5.300	4.5
10. Rural water supply	1.247	1.6	2.882	2.6	Included under other heads.	
11. Social welfare	0.070	0.1	0.750	0.7	0.470	0.4
12. Miscellaneous	3.058	4.0	1.568	1.4	Included under other heads.	
13. Planning organizations	—	—	—	—	5.850	4.9
14. Hydro-electric schemes	—	—	—	—	18.000	15.2
15. Projects started earlier not included elsewhere	—	—	—	—	2.000	1.7
Total	77.353	100.0	110.280	100.0	118.258 (=107.507m. in $W.I.)	100.0
Average Annual Rate of Expenditure	19.3		22.1		21.5 ($W.I. million)	

Sources: British Guiana 1956/9, compiled from 1960 Development Estimates. "Credits" have been allocated in the 1960/4 planned ratios to Agriculture, Industry and Housing.

British Guiana 1960/4. Programme, p. 10. As indicated on p. 31 of the Programme, $7 million of the item "Credits" have been allocated to Agriculture, the remaining $4 million constituting the industry sector; also $1.9 million of the original item "Surveys" represent surveys mainly for drainage and irrigation, and have therefore been put under "Agriculture".

Surinam. For all items except 14, the report *Van 1960-1965*, by the Adviesraad voor de Herziening van het Tienjarenplan (December 1959). For item 14, the Brokopondo Bureau; 12 million of this is an interest free loan, from Suralco, the Alcoa subsidiary operating in Surinam. All expenditures in the Ten-Year Plan (1955/64) are financed by the following formula: 1/3, grant from the Netherlands Government; 1/3, loan from the Netherlands Government at about 3%; 1/3, from local budget surpluses. Some development expenditure, such as that of the Brokopondo Bureau is financed independently of the Ten-Year Plan. Again, the geophysical survey will cost much more than the 5 million guilders mentioned, but it is hoped to raise the extra money from other sources such as the U.N. Special Fund, so that the extra amount does not come into this table.

programme was directed to social expenditure, especially on Housing (though Health has been and will be dangerously starved for funds – only $1.5 million over nine years)[7].

Given the laudable desire to increase funds in the economic sectors, what criteria were used for allocating funds to these various sectors? The allocations "were evolved after a very brief visit to the Colony" (*Report* p. 30), but although "local expert knowledge and experience deserve to be given full weight when any final Programme is drawn up" (*ibid.*), the final Programme is in fact almost identical with that advocated by the *Report*. Apparently the heavy emphasis placed on agriculture is because "It has been said many times that for the next fifteen years at least agriculture must supply most of the expansion in British Guiana" (p. 32), so that "there seems no alternative to very heavy expenditure on water control measures" *(ibid.)* [8]. Manufacture receives little emphasis because "The home market is tiny and there has been little tariff protection even for that. The possibilities of export are generally poor, for British Guiana has no cheap power and few raw materials" (p. 12). These statements contain all the rationale, as far as I have been able to discover, for the remarkable concentration on agriculture, and within agriculture, on rice ("British Guiana farmers know how to grow rice" (p. 11)).

Such off-hand treatment of the intensely important task of efficient allocation of investment funds is merely playing with the problem. Investment funds constitute a scarce commodity and careful calculations have to be made to ensure that one is using them efficiently. There is by now a vast literature on this problem, and on the suitable criteria of efficiency that one should use. My own choice, *for British Guiana at the present stage* (for other countries this may not necessarily be suitable) would be to try to use funds to raise the rate of growth of income to as high a level as possible; another, different, criterion, with which I would not agree (for B.G.) would be to raise the rate of growth of employment as high as possible. But no matter what criterion we adopt, it is necessary to examine each project using investment funds to see that it is likely to generate more income (or employment, if that is the criterion) per investment dollar than any possible project not so included. These computations are often difficult, especially in the case of such non-specific expenditures as roads or education. But they must be carried out if the investment programme is to have any economic meaning, and not to be just a rather random collection of Departmental projects. An essential requirement is an economic planning staff, whose job it would be, among other tasks, to perform such calculations; economic planning is far too important and difficult a matter to be left to visiting economists (a category which of course includes myself).

Let us attempt one such computation of returns on an investment project, though the arithmetic will necessarily be very crude because the data required for a more exact estimate have not yet been collected.

The Corentyne scheme (Black Bush Polder, Blocks I and II) is a major project which should be completed by 1961, and so should be fully utilized by the end of the Programme. Some of the drainage works were completed during the last programme, but that expenditure can be readily estimated. Total expenditure on the project I estimate at $18.67 million, made up as follows: $15.32 on drainage and irrigation works (from 1960 Development Estimates, p. 14); Land Development expenditure, $1.5 million (Programme, p. 16); Machinery and Equipment $450,000 (based on land area of scheme as a proportion of all settlement schemes; Programme, p. 16); Water Supply, $400,000 (an arbitrary proportion of total planned expenditure on water supply of $2.9 million); Credits $1 million (and again an arbitrary proportion of the $7 million of new money to be made available). These last two items do not look on the high side, while some unallocable expenditure (surveys, seed padi scheme, sea defences, roads), has not been included at all.

About 27,600 acres will be brought into cultivation [9], and apparently a further 23,000 acres of rice and 28,000 of cattle pasture benefited. On the new acreage, of which 23,000 will be rice, and the rest "home" plots, 1,586 families will be settled. This represents a capital expenditure of $11,800 per family. Even if we allow for the fact that some of this expenditure "benefits" other farms, this can scarcely mean less than an expenditure of $10,000 per settled family.

If we use the previous figure of a gross yield of $89 per acre in small rice farms, (from O'Loughlin's 1958 study), and deduct $9 for *direct* expenditure on imports of materials, we get an estimated $80 per acre of rice as an addition to the domestic income stream. Assuming $100 per acre for the home plot, this yields a direct addition to domestic incomes of $2.3 million per annum from this scheme, which gives a capital/output ratio of 8:1. If we assume that the benefited rice acreage of 23,000 will yield a further $20 per acre because of the scheme, and the cattle pasture an additional $10 per acre, the addition to domestic incomes becomes $3 million, rather than $2.3 million, giving a capital/output ratio of 6:1. Of course multiplier effects would reduce this (the multiplier is probably of the order of 2 to 2.5), but these effects would probably apply also to any project outside the mining sector.

These capital/output ratios seem high (compare Ceylon's overall direct ratio of 2.6, with peasant agriculture at 1.6) [10], but may not be so in comparison with the other projects available. Again the important point is that none of the projects appears to have been assessed in these terms. If projects are available that would give markedly lower ratios, (in or outside agriculture), then they should be adopted rather than the scheme concerned; alternatively it might pay to incur yet greater expenditure to drain and irrigate more on this scheme itself, in order to grow better income-yielding crops and thus obtain a lower ratio. As it stands, it seems

to yield a very low income return on capital invested; and, to repeat, investment funds are scarce; this one project will take almost 9 per cent of the entire programme.

The computation has been admittedly very rough, but shows the power of the method; there is no reason why it should not be carried out for employment as well, if that is the investment criterion. Without such a tough-minded approach to these projects, very serious misallocations of funds (in the efficiency sense) may result. Money may almost literally be splashed around and poured down the drain, money which could much more usefully be employed on other projects. At the very least such calculations show that agriculture is not, in the conditions of British Guiana, a low consumer of capital. Many light industries would require a far smaller capital both per man (or woman) employed, and per hundred dollars of output; much economic thinking in B.G. seems bemused by the mining industry in its midst into believing that it is characteristic of *all* manufacturing industry, which therefore is thought to require much heavier capital per employee than *all* agriculture.

I conclude this section on the detailed Programme by dealing with the questions raised in its opening paragraph. It is not possible to say that the Programme fails because of its misallocation rather than its low level, since the relevant computations have not been performed; nor is it possible to say the opposite, for the same reason. From the skimpy evidence available, I would judge that both causes are important, but would place more emphasis on misallocation, mainly because this is a problem that has received so little attention in British Guiana; criticism has largely focused on the small size of the Programme to the exclusion of the appropriateness of its direction.

IV. The Long-Run Future of the Economy

It is a central theme of this paper that the Programme will solve neither the income problem nor the employment problem. By accenting the short-run palliatives of rice farming, British Guiana is piling up for itself, in the by no means distant future, a host of grave social and political problems. The experience of Ceylon, where similar very heavy investments in rice were made over the last decade, is salutary in this respect; the rise in incomes and employment did not keep pace with population growth, and mainly because of this failure to raise the long-run growth rate, severe social problems resulted; the society has been in constant danger of disintegration.

The most grievous omission in the Programme and in the *Report*, however, is their failure to envisage any appropriate long-run future for the Guianese economy. There is no awareness of the sort of economy which British Guiana should evolve, except that of low-income peasant agriculture. And the latter prospect is by no means assured; the *Report* itself

states "it will not be easy to absorb thousands more every year in agriculture" [after 1965] (p. 12); again, "unless strong efforts are made to diversify, the position will be unpleasant by 1970" (p. 11); yet again, "if the foundations are not laid for a faster expansion [of manufacture] in 1965-74 the economy will be in trouble" (p. 12). The apparent long-range picture is, then, of an agricultural economy that will gradually diversify its production into such fields as cocoa and coconuts, mainly by expansion of acreage towards the interior, with an increasing amount of industry of unspecified type, producing largely for the home market ("the fast growth of the home market must [in the sense of 'will'] make more and more industrial undertakings viable — especially if they are given a modest amount of protection," *Report*, p. 40). I think it not unfair to say, however, that the long-run future is not imagined at all clearly, and few vigorous plans are being set on foot *now* to implement what vision of the future does obtain.

It should be one of the two main tasks of the recommended planning staff to look ahead imaginatively, in order to comprehend the type of economy which British Guiana should become. This is important even for its other main task, the appraisal and selection of projects for relatively short-term plans. This is so because many projects (roads, for example) will not be directly assessable in terms of income yield, and can only be considered sensibly in the light of the contribution they will make to establishing the type of economy that one has judged, on all the evidence available, to be that appropriate for the country concerned.

Clearly such a task is difficult and calls for skill and imagination of a high order in several fields, (economics, statistics, engineering, and agriculture, to name the most important). One important truth that must be faced is that the economic problems of small countries are often *intellectually* considerably *more* difficult than those in large countries, since they call for forecasts of the likely pattern of world trade; large countries can more easily turn their back on the world. This is why it is a counsel of despair for the Programme to say (p. 5) that "the underdeveloped territories unfortunately, are naturally unable to compete with the advanced countries for the services of..... experts to plan, supervise and direct their development projects". The ideal would be, of course, to have this done by Guianese themselves, and there is some evidence that full use is not being made of the local expertise that is available. But even granted this, efforts should be made to shop in the *world* market for able and energetic men (and women) with the necessary skills to staff such a planning unit, at least to begin with. It is demonstrable foolishness to say that this cannot be afforded, that one would need to pay the impossible salary of say, $20,000 a year for good people. Even if such a unit costs $1 million a year (the amount paid in Surinam), and as a result of its sensible planning the national income is increased even by only the small amount of $10 million, it would still pay for itself two or three times over in government revenue alone. It seems foolish to embark upon a programme of $110

million without budgeting a cent to see that the money is wisely spent; yet that is the position in British Guiana.

The task of devising a sensible long-run programme must be left for such a planning staff. But since this paper is highly critical of the existing Programme, it is incumbent upon the author to suggest the directions of change which he would recommend, even though little detailed information is available on which to base really firm conclusions. Nevertheless, I would say that the long-run economic future of British Guiana – if it is to have one – is as an economy based predominantly on heavy industry, principally metal, wood and mineral manufactures, backed up by an efficient export agriculture and light industry. I say this for two reasons, the first major, the other secondary. First, the endowment of natural resources favours heavy industry. There are clear signs of large quantities of potential cheap hydro-electric power; there are large deposits of bauxite, manganese, lateritic ores (containing iron and aluminium), glass sand, and kaolin, to name those already discovered; and the reserves of timber are very large, for charcoal, for lumber, for wood pulp and for a wood chemical industry; there is the rather faint possibility of off-shore oil; and, lastly, the many rivers constitute a cheap means of bulk transport [11]. Given this configuration, imaginative and energetic planning, and large amounts of foreign capital, a complex of heavy industry is certainly within the bounds of probability. This is reinforced by the second reason namely that Surinam, which is physically very similar to British Guiana (the Corentyne river does not constitute a boundary of any geographical significance) is already embarking vigorously and successfully on such a programme [12]. A large hydro-electric scheme (of 150 MW capacity) is already under construction with private capital, and two more are in an advanced planning stage. An aluminium smelter is to be built, and later probably an alumina plant; there are possibilities also of a caustic soda plant, based on cheap power and feeding soda to alumina, and chlorine to a wood pulp industry. The various technical – and economic – possibilities are very large and impressive. Surinam may well in twenty-five years' time, given stable world conditions, have one of the highest incomes *per capita* in the hemisphere; certainly an absolute labour shortage is probable in ten years. The prospects for industrialization of countries with the natural endowments of British Guiana and Surinam are very good, far better than those of countries with the meagre endowments of Jamaica, or even, perhaps, of Trinidad.

It would be idle to deny, however, that there exist strong prejudices against the idea of British Guiana as an industrial country [13]. These are often based on the objection that it is not normal to find equatorial countries as locations of heavy industry. This is true enough; but we must remember that advances in public health, and in the technology of refrigeration, have transformed life in the tropics. A country like Jamaica, which a hundred years ago was very unhealthy indeed, is now, climatically speaking, one of the most delightful places in the world in which to live and

work. Again, advances in metallurgy, such as recent attempts to devise an economical process for smelting the lateritic ores which are found in such abundance in the Guianas, to get out both iron and aluminium, will prove of immense importance.

A more cogent argument against this view is that it would take very large quantities of capital, and would therefore almost necessarily require private foreign capital. This is undoubtedly true; the cost of Surinam's Brokopondo hydro-electric installation and smelter alone will be of the order of British Guiana's entire national income. Assuming that the domestic saving rate (private and public) is 15 per cent, that would mean seven years of national savings for this one project alone, with nothing else being done at all. This is quite out of the question if growth is to proceed rapidly. An alternative would be to seek loans from international agencies or foreign governments; but the former are unlikely to supply the large sums required, while on the whole the latter source, although a distinct possibility for funds in general, would not seem to be a suitable source of funds for *particular* projects. Public borrowing on foreign private capital markets is, however, certainly possible; Western Germany, for example, may be a good source of funds.

It would also be idle to deny that British Guiana has suffered in the past from exploitation by foreign capital, and that this has resulted today in the demoralization of many people at all levels of the society, a demoralization which is in marked contrast to the vigour and resolution with which most of the West Indies (and Puerto Rico and Surinam) are tackling their problems. These attitudes are reinforced by the paternalism of recent Governments and – to some extent – of the foreign capital itself. People are led to expect that economic progress is not *their* responsibility. Such a development is not uncommon in the twilight of colonialism, but it can be gravely injurious both to the prospects of growth and to the happiness of the people concerned. It is understandable but not, ultimately, good for the society.

This distrust of foreign capital understandably runs very wide and deep in Guianese society, and has led to the idea that most new industries should be state-run (financed perhaps by borrowing in private markets), in order to avoid foreign exploitation. Now it is essential for rapid growth that the natural resources – though not the Guianese people – should be rapidly exploited. The question therefore turns on whether the state is the most appropriate agency for carrying out as well as planning this rapid development. I believe that this is not so, and that concentration on state-run industries will, *in Guianese conditions*, result in a much slower rate of growth than would otherwise be possible. Let us be clear that it is the state's duty to ensure that growth proceeds in a rapid and orderly manner and that the interests of the people are preserved at all times; but the actual financing and execution of the projects by the state is not the most efficient way of going about things.

First and most important, the sheer magnitude of the capital required

means recourse to foreign capital – in some form or other – and I doubt the ability of state-run industries (in the present Guianese context) to raise the necessary funds. Further, the quality of the civil service is at present not particularly high in British Guiana, and it seems unrealistic to suppose that it will be transformed for the better when it operates enterprises (the rejection rate in the Ceylon Government's ceramic factory was over 50 per cent, while the mountain of rejects from Puerto Rico's clay products plant is still visible, although it stopped operations a decade ago). Government enterprises will constantly be exposed to demands from their workers and from consumers (especially after the recent paternalistic period) which private firms can escape, and it will therefore be difficult for them to concentrate on efficient production. Finally, public enterprises are always prone to inhibiting political criticism, which is avoided by the use of private entrepreneurs.

In present conditions, then, it seems unreasonable to place reliance on state-run industries, especially for those products which will have to be sold abroad, where marketing skills of a high order are called for. As the economy develops, and capital and skills accumulate, then it may well prove feasible for efficient state-run industries to get going.

This picture of the most profitable future direction of the Guianese economy, which will have to be examined in much greater detail by a competent planning staff, implies a very definite approach to the short-to-medium run plan[14]. It is convenient to divide such an approach into five main categories:

(a) constructing the appropriate economic environment for heavy industry;
(b) dealing with the short-to-medium run problems of income and employment by (i) agriculture and (ii) light industry;
(c) the actual examination of the heavy industrial potential, determining feasibility of industries and industrial complexes, and negotiating with foreign capital;
(d) exploration of future possibilities;
(e) general financial and commercial implications.

It is important to say something on each, in order to give some idea of the flavour of the approach being sketched out here; but it must be remembered that it is only a sketch, and a rudimentary sketch at that.

(a) *Constructing the Appropriate Environment*

Under this head (the horrible word "infra-structure" springs to mind), I would place communications and education. Efficient transportation and a highly skilled labour force are essential for a modern industrial society. Not much of interest can be said here, pending a detailed examination of the implications of an industrial programme, but it would seem useful to offer comments on the relevant sections of the Programme and *Report*, in order to indicate the necessary changes of emphasis.

Civil Aviation. It is one of the most startling recommendations of the *Report* (p. 37) (though the Programme, pp. 25-6 has not yet made up its mind)

that B.G. should "cease to be on the world international air route system, and . . . connect with it by Dakota to Trinidad" (the existing service uses Viscounts as well as Dakotas). This recommendation seems to me of itself to show very clearly that the *Report* has not seriously considered the problems of countries like British Guiana, which need to attract foreign capital in large quantities. Not only will foreign businessmen think little of a backwater which has such poor communications with the outside world (the *Report* admits that it "would be a blow to prestige"), but, more importantly, they are not likely to come at all if it involves the purgatory of a DC-3 in an age when they can have the comfort of a DC-8. This recommendation plans British Guiana right back into the first half of the twentieth century.

The *Report* is on safer ground in doubting the Departmental bid of some $8 to $10 million for a new airport. This seems highly excessive. Surinam has completed a new runway (only one is needed in this trade wind area) which will take the largest commercial jets, and has almost completed a big new terminal building, at a combined cost of about $3¼ million (W.I.). There seems little reason why British Guiana could not do the same [15]. The *Report* recommends that Atkinson Field should be abandoned and an airport built closer to Georgetown; there seem cogent reasons, however, for reversing this suggestion. If British Guiana develops heavy industry, it will probably be in the belt roughly fifty to a hundred miles from the coast, and the position of Atkinson 25 miles inland would be an advantage. An airport near Georgetown would take away valuable land that may be needed later for Georgetown's expansion, and if heavier aircraft than Dakotas eventually use it, it could be a serious inconvenience — and perhaps danger — to the city. The present site is on more or less barren soil whose alternative uses are meagre. It would not appear to be necessary to repair all the existing buildings; some could be allowed to fall into disuse if a modern terminal is built. What is certainly needed is a good, fast road into Georgetown to replace the present remarkable route; but this is not impossible, and could in any case form part of the required road system since it could be continued further south.

Water Transport. Planning the optimum use of the waterway system obviously calls for detailed knowledge, but it does seem as though sufficient use is not made of the possibilities. One clear priority is to explore all the reasonable technical possibilities of removing the bars at the mouths of several of the rivers, particularly the Demerara. On the other hand, recent advances in transport technology may reduce the barrier to heavy shipping that these bars represent.

Roads. The Programme does sensibly call for the building of a road to the interior, rather than along the coast. But it may be questioned whether a road all the way to the Rupununi would be a good allocation of funds. The Rupununi appears to have a very low carrying factor for cattle, while

most of it is apparently very old rock, which is unlikely to yield minerals of value; and there seems little water power available. It might be better, then, to allocate funds to another road to a less remote and more economically promising part of the interior. Most thinking about interior communications has apparently been in terms of opening up the area for agriculture; if one thinks in terms of opening it up for industry as well, a quite different pattern of communications from that for agriculture alone may become appropriate.

There is in addition the problem, discussed in footnote 15, of the quality of the road surfacing. It has been calculated in Surinam that asphalting of country roads is economical provided that traffic density greater than 150 to 200 cars per 24 hours can reasonably be expected;[16] similar calculations should be made in British Guiana. The possibilities of using different cheap materials (waste bauxite, for example) should be explored. The vexed problem of maintaining the East and West Coast railways should be examined in terms of the likely changes in the traffic pattern; without prejudging the issue, it seems unlikely that the I.B.R.D. conclusions of 1953 would stand without revision, especially if the price mechanism is intelligently used to encourage the maximum utilization of resources, and not to discourage private investment in road transport, as at present.

Education. Not many poor countries have yet realized the crucial importance of a highly educated labour force for a modern economy, largely because their ideas of the nature of industrial technology are frequently at least forty years out-of-date. The technology that is now rapidly evolving no longer requires mindless human automata to look after simple machines (and the extent of this has in any case been considerably exaggerated in the past), but skilled men and women to direct machines of considerably greater complexity. There is no reason why the Guianese could not develop such a labour force (witness the rapidity with which West Indians acquire industrial skills in Britain), but it does require a good basic education, and further training in industrial skills. Educational expenditure should be removed from the social sector and put into the economic sector, as it is in Puerto Rico, where they spend one of the highest proportions of national income in the world on education, and are finding that it still is not enough for their burgeoning industrial needs [17].

(*b*) *Transitional Problems of Income and Employment*

The careful planning and implementation of a heavy industrial complex is a very long-range business, and in the meantime there is need to cope with the rapidly growing population, and, if possible, to raise income *per capita* during the transitional phase, which may well last the better part of a generation. Otherwise the stresses set up may prevent the society from ever reaching its goal. The two main lines of activity which spring to mind to fill this need are agriculture and light industry; if their output and em-

ployment can be made to rise substantially, multiplier effects will pull the rest of the economy along.

Agriculture. The approach to agricultural problems is quite transformed if we envisage the successful creation of a large industrial sector, for that will mean, as it has in all other industrial countries, a fall in the agricultural labour force, with a consequent rise in the average size of farm. It will be impermissible to plan a low income agricultural sector alongside a high income industrial sector; one must be careful to ensure that the disparity in *per capita* incomes between the two sectors is not too great, for otherwise social and political trouble will ensue (this is already seen on a small scale with the mining industry).

It is therefore necessary to arrange matters so that it is possible for new settlers to earn high incomes, a criterion which coincides with the need to secure much higher income returns on investment in agricultural projects (lower capital/output ratios) which we have already discussed. One branch of the planning organization should be concerned specifically with this problem [18]; its job would be to examine each project carefully and in detail, to examine soil conditions and work out carefully the optimum degrees of drainage and irrigation, and to prepare production and financial plans for the individual farmers to follow, patterned to the agricultural conditions prevailing in the project (or section of the project) concerned. By the use of supervised credit, the granting of which would be contingent on following these production plans, one can ensure that most farmers will fall into line. This implies a tough attitude to the settlers, and the employment of well-trained project supervisors who will see that the plans are being followed; but, after all, the Government is making a present of about $10,000 to each family, so that it is only reasonable that the farmer should follow advice, especially since to do so will be in his own long-run interest.

Such production plans imply diversification into other, better income-yielding crops [19]. This in turn implies more drainage and irrigation than for rice, but the additional return due to the better crops will usually pay for this. Whether the land should be cleared for the farmer is a matter of some debate; it might well be better to use the system of supervised credit to let him make his own arrangements, which will probably be much cheaper than central clearing [20]. In any case, the *Report's* recommendation that "the facilities provided by the Government should be nominal and the State should try to get clear of the site as quickly as possible" (p. 33), partly so that "the State is not held responsible for deficiencies" (p. 11) is quite wrong. In order to utilize the heavy initial expenditure on drainage and irrigation in the best way, the State should remain to supervise production, using as controls not physical direction but the carrot of supervised credit [21]. This will imply a hard-headed approach; I am quite aware that without firm direction, such a system could easily degenerate into yet more patern-

alism; but given a resolute will, much greater returns could be obtained. Partly because in the industrial phase the labour force in agriculture should fall, it would seem a good idea for the settlers, after a trial period of three to five years, to be given long leases (50 to 100 years), which could be legally transferred on permission from the agricultural authorities. This would encourage the settlers to make long-term improvements, and facilitate the transition when industry assumes the predominant role, since existing farms could be easily amalgamated by purchase.

There is no reason why employment in agriculture should fall in the short-run because of the approach outlined here.[22] Indeed if it is vigorously pursued employment should rise substantially, since a far more adequate living can be made on a mixed farm of say, 10 acres than on a rice farm of 15, partly because labour is utilized all year round. This means that existing acreages could support far more people in the transitional phase. More investment will be required, but this should more than pay for itself in increased yield.[23] This would depend, of course, on efficient marketing procedures — for both internal and external markets — being developed; the department responsible for this could well form a section of the planning organization.

Light Industry. Even with the rise in agricultural employment that such a revised approach should produce, it is unlikely that urban unemployment will be appreciably reduced (we have seen that the present Programme is very heavily biased in favour of the rural sector — especially rice — compared with the urban sector). It is therefore urgently necessary to deal with the problems of raising urban incomes and employment during the transitional period. This problem is very similar to Puerto Rico's and Jamaica's *long-term* problem, and it would seem sensible to find out if one can profit from their experience. They have found a solution in attracting foreign firms to set up manufacturing branches in the island concerned, which exports almost all the output to *already established markets,* mainly in the country of the firm's origin. The problem here is one of overseas markets, low local labour costs, and encouragement by promotional schemes and tax exemption. There is no reason why B.G. should not be able to attract a reasonable quantity of light industry of this sort. The country has some solid attractions. It has a fairly well-educated labour force, whose rates of pay are low. The average female earnings in 1956 were $9.4 a week in urban areas, which works out at 14 U.S. cents an hour, assuming a forty-hour week; this is about one-eighth of the corresponding U.S. wage. The fact that the language used is English helps in attracting North American and British entrepreneurs, while Georgetown is a pleasant and well planned city, with good internal communications.

Nevertheless considerable inducements must be held out to prospective operators, most of whom are small firms, and in no sense "monopoly capitalists". They are interested in making profits, and in view of the real or

imagined risks – and the very real strangeness – of a foreign environment, will need to see the prospect of at least twice the profit rate on sales that they could earn in North America or Europe. British Guiana's interest will mainly be the wage bills and the employment which they generate directly or indirectly. Tax exemption, both of income tax for limited periods and of import duties altogether, constitute a real inducement [24]. Moreover, since most of the entrepreneurs concerned have probably never heard of British Guiana, it is important to reach them by a well-aimed promotional campaign. An Industrial Development Corporation on the lines of those in Puerto Rico, Trinidad and Jamaica is needed, which would, among other things, operate trading estates. The capital per worker required is not necessarily very high; in the garment trade, for example, non-factory capital is usually of the order of $800-$1,000 per worker, and the factories involved are very simple structures.

It is often said that such factories only come in order to take advantage of tax holidays, and are likely to leave when these concessions run out. This objection does have some force, (although there is no reason to suppose that such plants would be any more temporary than the present sugar industry in B.G. [25]). In Puerto Rico and Jamaica especially, really clever planning is needed to get a viable industrial complex underway. British Guiana, however, is more fortunate, since this is only envisaged to be a temporary solution anyway. In fact I believe that several firms would remain permanently, especially as the home market grows; it must be remembered that such export firms *have* to be efficient, unlike highly protected firms producing for the home market. Moreover, as time goes on, local enterprise will be more closely involved. Even if some firms do leave however, this should only occur after heavy industry picks up momentum.

The details of such a programme for light industry need not concern us in this brief paper, especially as there are several excellent precedents. But it might be worthwhile to point out that such foreign entrepreneurs might invest in British Guiana with considerably more confidence and prospect of profit if it were part of a larger political and economic unit; this is also true of investors in heavy industry. I would not presume to say that B.G. should join in any degree the Federation of the West Indies (or even link up with Surinam and Cayenne, which are in some ways more natural economic partners), but she does have to consider very seriously whether associating with the West Indies would not accelerate her possible rate of growth considerably. This is especially true if by so doing the Guianese people could attain much greater responsibility for the direction of their own affairs, which seems to me utterly essential for any vigorous expansion programme of the type adumbrated here [26].

(*c*) *Planning for Heavy Industry*

The programme for heavy industry would necessarily be a long-term one, calling for highly trained and imaginative process and power engineers,

metallurgists and technical economists on the planning staff, as well as for a liberal use of outside consultants. Not much more than leading principles can be suggested here.

Fuel. It is very clear that no sizeable industrialization can proceed without cheap local sources of fuel, for otherwise only mining will be feasible. Unless nuclear technology makes unexpectedly rapid headway, this in turn essentially implies a careful and vigorous search for hydro-electric potential. It seems a reasonable certainty that such cheap power *is* potentially available in British Guiana, for it is abundantly so in Surinam, whose rivers have very similar hydrological regimes to those in B.G. [27]. There has been one large-scale investigation in British Guiana, for the Demerara Bauxite Company, carried out by another subsidiary of Aluminium Ltd. Its results were not encouraging, but this cannot be considered at all conclusive, for several reasons. First, it was carried out with a view to providing power for bauxite and alumina, rather than aluminium, and since such aspects as load factors differ for the different products, the latter possibility cannot be said to have been examined in detail. Secondly, the project was considered only as a pure hydro-project. The possibility of thermal back-up might make an integrated power system more economical. Thirdly, it was an investigation of the Demerara River only (although a diversion from the Essequibo was investigated as part of the project), which is not necessarily the most suitable river for electric power; and fourthly, it cannot be considered an entirely disinterested study.[28]

A really vigorous approach to this problem of determining power potential must be pushed forward as rapidly as possible, since hydro-schemes take so long to get into operation. It is depressing that the Programme (p. 30) allows only $700,000 for all hydrological surveys (most of which will be in connection with drainage and irrigation. This should immediately be heavily increased[29], since no useful planning for heavy industry can start without it.

It is important also to press ahead with investigation into other subsidiary fuels. Off-shore oil is a possibility. Pressure should be brought to bear on the company concerned in the present investigations to produce its results quickly and, if favourable, to act on them promptly. Attention should also be paid to the building of access roads in the forests to ensure supplies of timber and charcoal; the vote for forestry in the Programme is only $550,000, and all of that is for a timber yard.

Industry. Once hydro-potential has been proved (and I have little doubt that it will be), one must set about getting the projects built. The sums involved are so large, that the best course will probably be to get foreign metallurgical firms interested in erecting the dams themselves, selling spare power to the national power authority for smaller industries and domestic needs. The firms involved will probably be aluminium companies, though if an economical process for smelting the lateritic ores into both iron and aluminium is discovered, iron and steel firms might also be interested[30]. It

is very likely that the first approaches to the relevant firms will be met with refusals, but persistent attempts must be made to interest them. It is important to be thoroughly aware of foreign legislation, such as the Western Hemisphere Trading Corporation Act of the U.S., that might make it advantageous for foreign firms to invest in British Guiana, and to be willing to adjust one's own legislation to take advantage of this.

There is a peculiar paradox here associated with attitudes to foreign capital. If investors can be led genuinely to believe that their capital is welcomed, and the country concerned is stable both politically and economically, considerably harder bargains can be struck with them than if this is not the case. Negotiating becomes a matter of hard-headed business. On the other hand, if there is not complete trust in the seriousness of one's welcome to foreign capital, considerably greater concessions may be necessary in order to arrive at a contract.

The planning staff will have a great deal of work to do on feasibility studies, which would assist firms to assess the profit possibilites. Full examination must be made of the many technical complementarities possible, such as the alumina-caustic soda-chlorine-wood-pulp example already mentioned; this calls for imagination and an awareness of present and likely future trends in the appropriate technologies. One must be very careful not to think in terms of old or irrelevant technologies, especially since the natural factor endowments in British Guiana may call for unusual combinations of inputs by the standard of other countries with different endowments. The resources proved already are so large, however, that given cheap power, many large-scale projects should prove feasible.

The strategy of such industrial planning is clearly difficult, calling for hard, skilful and energetic work by the planning staff and the appropriate ministries;[31] far more work, in fact, than would be involved in running a few fairly small Government factories (though that possibility is certainly not excluded if, in some lines essential to the complex, foreign capital cannot be induced to operate). It is clear also that little that is useful can be said at this juncture. Prolonged study is needed, study which has not been undertaken by any of B.G's many visiting experts, partly because the time available was usually far too short and partly because their expertise was not in the appropriate areas for work of this sort; this paper is no exception to that rule.

(*d*) *Exploration of Resources*

The discussion of industry has mentioned only those natural resources which are known to be available, apart from hydro-power, which is a near-certainty, and oil, which is sufficiently uncertain to have had little stress laid upon it here. But further exploration may well uncover larger quantities of existing minerals (large new deposits of bauxite have recently been discovered near the Pakaraimas), and substantial deposits of new minerals. The Programme allots only $2.8m. to geological, topographical and aerial surveys, which is not much of an increase on the old plan [32]. This expendi-

ture should be increased, so that more rapid headway may be made with the preparation of a geological map, and with the aerial and geo-physical surveys. Admittedly this is "wild" money; the returns are extremely uncertain, but they are potentially so great that it is worth the risk. The common economic criterion of maximizing the mathematically expected return would certainly indicate a larger vote under this head. Additional work may also be required to help the industrial planners, e.g. in proving reserves in already known deposits. Full use should be made of geological surveys by private firms. This requires a careful examination of one's mining laws to see that they fit in with overseas tax laws. But stringent conditions must also be made to see that a minimum level of exploration is carried out and that samples of all minerals found are sent to the government.

(e) *Commercial and Financial Implications.*

The changing structure of the Guianese economy will obviously require reappraisal of its existing commercial and financial arrangements. It has already been suggested above that some closer association with the Federation of the West Indies might, by encouraging foreign investors, result in a faster rate of growth; such a possibility needs to be investigated closely. In any event, it appears very probable that British Guiana will have to realize more firmly its geographical position – in the Western Hemisphere and with good access to Western Europe and West Africa. At present B.G. looks in most things towards the United Kingdom; although in absolute terms such a connection is likely to continue at least at the same level, the *relative* importance of Britain will gradually shrink, as it has in Jamaica and Trinidad, both as a trading partner and as a source of finance and expertise.

No attempt has been made here to determine a suitable level of the Government's investment programme. This seems a futile exercise until one has investigated in a realistic way the good income-generating projects which are available. It seems unlikely, however, that a programme at the existing level of $110m. would be adequate (Surinam's programme represents twice the investment *per capita*). The financing of a larger programme would, it is true, be a real problem. On the other hand, it seems probable that a carefully planned long-term programme would be able to command a larger grant from the U.K. Government than hitherto.[33] A greater exploration of the possibility of raising loans in London backed by the U.K. Government is certainly needed; loans from the West German market may also be available at attractive rates in the coming decade. Certainly a much firmer attempt must be made to increase the proportion of finance coming from budget surpluses. Only a $1.1 m. surplus is budgeted for 1960, which is only about 4½ per cent of the total planned development expenditure [34]. It seems unlikely that the limits of taxable capacity have yet been reached, compared with such a country as Jamaica, while a larger

and more efficiently run programme will itself tend to produce considerably greater revenue (and admittedly, higher current expenditure as well; but the surplus should rise).

British Guiana also needs to consider very seriously whether existing monetary arrangements are the most appropriate for long-term growth. Is it worthwhile to have an almost complete freedom from balance of payments problems in return for a complete lack of control over its local money supply? Is it, in other words, a good idea to have a Currency Board rather than a Central Bank? Such a question cannot possibly be answered without considerable study; but one should be careful not to dismiss out of hand the idea of a Central Bank. First, it is unlikely that, if development proceeds on the basis of large imports of foreign capital, there will be many balance of payments problems; secondly, the objection that such small countries cannot have Central Banks is forestalled by the example of Surinam, which is half the size and has a very useful and well-run Central Bank; thirdly, if there is to be some association with the West Indies, this could also include association with the Federal Bank, although the merits of such a procedure would, again, require realistic investigation.

V. Conclusion

The main thesis of this article has been that the present five-year programme of investment by the Government of British Guiana will not bring about a satisfactory rate of economic growth during the period, and – more importantly – does not lay the foundations of sustainable future growth. The short-term failure is chiefly due to a failure to test existing projects realistically for their contribution to the generation of income and employment; the long-term failure represents a failure of the imagination on the part of those responsible for formulating long-range policy.

The firmest recommendation that this paper makes is that a start should be made immediately on the recruitment of a sizeable, highly trained and imaginative planning staff, whose job it would be to devise a fresh programme and to prepare long-range plans. [35]. Several suggestions have been made here about the main features of such a programme and such plans. There are very clear indications, based on the relative factor endowments in B.G., that the long-term aim should be a complex of heavy industries; this implies also certain policies for the transitional phase. That any viable future will probably depend mainly on heavy industry, I believe to be incontrovertible [36]. But the various detailed suggestions that have been made here towards implementing that decision, although made after some consideration, need deep and hard further study. British Guiana has suffered from the advice of visiting experts; the time has come to have a large, permanent staff of planners, who will be able to give that *continuous* and sympathetic application to British Guiana's problems which their difficulty and complexity – and promise – demand. No quantity of temporary out-

side advisers, however eminent and of whatever political persuasion, can take the place of this essential requirement.

I am reconciled in advance to the near-certainty that the approach sketched in this paper will be described as "unrealistic", or even politically "impossible", although it rests quite firmly on the distribution of natural resources possessed by British Guiana, and is broadly similar to that being pursued with success by an even smaller neighbouring country, whose physical features and ethnic composition are very similar to those of B.G. Much opposition to the idea of heavy industry is based on half-baked notions of what is appropriate to an equatorial country. Moreover, what alternative is there? The present official approach is a recipe for relative stagnation on the economic side, and probable explosion on the political side. The alternative approach sketched here offers the distinct possibility of rapid expansion; at worst, one would be no worse off than under the present policies, since the agricultural side would not be neglected.

Yet the approach of this paper *is* unrealistic in the present Guianese context. It calls for qualities of imagination and drive at all levels of the society, especially the highest, which are not — to be frank — very evident in present-day British Guiana. This lack is understandable in view of the oppressive nature of foreign government and capital in the past, and their paternalistic nature at present. But Guianese leadership must challenge and overcome this barrier if rapid progress is to be made. Any other solution implies either miserably low incomes, or continuing charity, which is a terrible blow to a nation's self-respect. The qualities required are certainly there, as they are in nearly every society (witness the striking resurgence of Puerto Rico and Jamaica after years of stagnation). But they are latent and need to be called forth by wise and vigorous leadership. There is a great opportunity to co-operate in the task of enlarging the national dividend, rather than in continuing the present quarrels over the distribution of a relatively fixed amount. Most of all, the people need to be given a clearly defined national objective, in the form of a desirable and attainable long-run economic and social structure towards which they can all work; and this requires intelligent and brave leadership at both the political and economic levels. Given this, many of the present barriers which seem so insuperable — the problems of independence and of racial division — will be far easier of solution. Without it the economic and social future of British Guiana will be bleak.

NOTES

[1]. Although I have had the benefit of many conversations with — and much information from — persons prominent in Guianese public life, the calculations and conclusions are my responsibility alone. I have also learned a great deal from talks with Government officials in Puerto Rico, Trinidad and Surinam.

In order to save space, Sessional Paper No. 5 will be referred to as Programme; Mr. Berrill's study as *Report;* and the national accounts study of British Guiana by Dr. O'Loughlin (*Social and Economic Studies,* 8, March 1959) — which has been of great value — as *O'Loughlin.*

[3]. My terms of trade index was obtained as follows:
(a) *Exports*: Official index, which is reliable, since three products (sugar, bauxite and rice) account for over 90 per cent of exports.
(b) *Imports*: *O'Loughlin's* index (p. 74) covered only a non-random 28 per cent of total imports, and so cannot be considered altogether reliable. As an alternative, I used the arithmetic mean of the Jamaican and Trinidad indices of unit values of imports, as given in *Quarterly Digest of Colonial Statistics*, October 1959. The Jamaican index is influenced by large quantities of investment goods, which have been rising in price relative to other types of goods; while the Trinidadian index is affected by relatively sluggish oil prices. A mean between them offers a very rough-and-ready compromise, pending the construction of a reliable Guianese index.

[5]. The *Report* is misleading in its picture of the past rates of increase of physical production. Thus it says of bauxite: "world consumption was rising at over 10 per cent a year and the value of British Guiana's exports rose by nearly a half in the quinquennium [1952/7]." This does not actually say that B.G's bauxite production rose substantially in physical terms (it fell from 2.4 million tons in 1952 to 2.2 million tons in 1957), but to the unwary reader it certainly implies it.

4. There is therefore nothing necessarily wrong in assuming, as the official projections do, that during the Programme revenue will rise at 6 per cent, even though national income will rise at not much more than half of that. It should be noticed, however, that estimated revenue in the 1960 Budget is, at $51.6 million, about $2 million below the estimates prepared for the *Report*, and the revenue surplus for 1960 ($1.1 million) also from $2 to $3 million below the original estimate. This is not a very encouraging start.

[5]. Because the underlying assumptions of the *Report* are so odd, I shall not be concerned with a detailed examination of the calculations of borrowing capacity etc. which the *Report* contains, although several of its remarks about the unnecessary conservatism of the Currency Board's and the Post Office Savings Bank's policies are very pertinent. On the other hand, the *Report's* estimates of the borrowing required for differing levels of the Development Programme make the very odd assumption that the revenue surplus will be the same for *each* level of the Programme, from $110 million to $200 million.

[6]. On the other hand the Programme maintains (p. 10) "that 200,000 acres of new land will be made available for cultivation by the end of 1964". On examination, however, this 200,000 turns out to be the amount that the projects concerned will supply on *completion* (p. 27). The Mahaica/Mahaicony/Abary Stage 1 project of 70,000 acres will be only 40 per cent complete by 1964 (28,000 acres); the text estimate of Miscellaneous Works (p. 30) is 32,000 acres, compared with the 45,000 acres of the table on p. 10; and if we allow 15 per cent for drainage canals etc. as well (see footnote 9 below), then the 200,000 acres shrinks to 123,000 acres. This is closer to the *Report's* estimate; in any case the Programme forecasts that only 65,000 acres of this new acreage will be in rice (p. 21). This leaves a balance of 58,000 acres, much of which will be in pasture, with farms of up to 60 acres per family.

7. The *Report* also envisages a Supplementary Programme of another $25.0 million in case, by 1962, it looks as though B.G. would be able to afford more funds. This allots another $6 million to Health, another $10 million to Roads, $5 m. to Credits, and $4 m. to Housing. But the earlier calculations in this paper indicate that this additional expenditure will be unlikely, unless there is a favourable swing in the terms of trade.

[8]. Two of these many voices are to be heard in the International Bank Report on British Guiana (*The Economic Development of British Guiana*, Johns Hopkins, 1953). "Improvements needed to increase local rice production are more of an intensive nature (yield per acre) than extensive (expansion of acreage)" (p. 148); "the process of agricultural intensification cannot proceed rapidly.... the principal contribution must come through expansion of the cultivable area" (p. 187). Such divergences of opinion must necessarily go unresolved when no attempt is made to cost the various alternatives. Again, the Bank Mission reported (p. 245) a conflict of opinion about the amount of water needed for cane, ranging between 3 and 7 acre-feet per acre. It is difficult to see how efficient agricultural planning can proceed in the face of such discrepancies in engineering information.

[9]. This is in apparent contradiction to the Programme (p. 27), which claims that the scheme will bring in 33,000 acres. But if we allow 15 per cent for drainage canals etc. (*IBRD Report*, p. 198), this brings the net utilizable acreage down to the figure in the text.

[10]. *Ten Year Plan,* Colombo, 1959, p. 81. Similar projects in Surinam incur direct capital/output ratios of 4:1, largely by growing other crops besides rice; even 4:1 is a high ratio compared with some branches of manufacturing industry. There are, of course, compelling political and social reasons for relatively heavy investment in agriculture. Even so, we have seen that Surinam is putting only 25 per cent of its programme into agriculture and yet getting probably as much income with it as B.G. is with her 50 per cent, because of more efficient use of resources.

[11]. In this I would agree with *O'Loughlin* (pp. 84-85) in her criticism of the *IBRD Report.* In that Report only a page or two is given to inland waterways, compared with eighteen pages devoted to a tendentious defence of the existing railway system. Compare the *IBRD Report on Surinam*: "Surinam has been endowed by nature with an ideal means for the cheap transport of bulk goods; i.e. a far-flung network of navigable rivers and coastal lanes. Properly exploited, they could accommodate an indefinite growth of traffic without much capital outlay and at minimum operating expense. Every effort should therefore be made to reap the fullest possible benefit from this precious natural asset" (p. 230). This is a startling difference in emphasis from that in the British Guiana IBRD Report.

[12]. It is symptomatic of the malaise and isolation in which B.G. currently finds itself that no one that I met there knew anything at all of the exciting developments taking place in Surinam, of which I had heard from the planning organizations of Puerto Rico. And this in a country whose capital is only 45 minutes aeroplane journey from Paramaribo.

[13]. It is perhaps not irrelevant to point out that the British Guiana IBRD mission consisted of eight members, of whom three were concerned with agriculture, one with transport, and none with industry; while Surinam's mission (whose conclusions were qualitatively different from B.G's) consisted of six members, one of whom was in agriculture, one a transportation economist, and one an adviser on industry, mining and power. Each mission had a chief of mission, an economist, and an adviser on forestry.

[14]. One must beware of the spurious neatness of five year plans. They tend to produce a grasshopper's eye view, which, however appropriate for large countries, are not appropriate for small nations, which need a judicious and simultaneous holding of a worm's eye view and a bird's eye view. They are all right for public relations purposes, but should be taken *cum grano salis* by the central planners. Many long-term developments require action *now;* thus Puerto Rico is planning its educational programme now after a detailed study of the likely needs of the economy in 1975; Surinam is already worrying about the short-fall in power supplies likely between 1967 and 1970.

[15]. This is just one example of what is apparently a pervasive fact — that British Guiana is having to pay high sums for inefficient work in some lines of activity. To take three more: the projected telephone modernization will have cost $9-$10 million by completion; the modernization of the Surinam system will cost less than $½ m. Even allowing for differences of scope and area, this seems a remarkable discrepancy. Again, the road system in B.G. is notoriously bad in the quality of its surfaces, even though large sums are spent both in capital charges and in maintenance costs; yet the road system around Paramaribo which has the same underlying soil structure, is a pleasure to drive on. Thirdly, several mistakes have been made in the drainage schemes (e.g. the Torani canal), which indicate faulty planning as well as execution.

One wonders to what extent these inefficiencies could be reduced by a lessened dependence on U.K. consultants and contractors, who are not always the most experienced operators in the particular field concerned (e.g. there are no large drainage works in the U.K. compared with Holland, and no large hydro-electric projects compared with the U.S.A. or the U.S.S.R.).

[16]. *Ten Year Plan for Surinam,* Surinam Planning Bureau (1954) pp. 57-58.

[17]. I do not know enough about the Guianese educational system to make detailed recommendations, but one or two general points should be made. The more advanced stages of education should not be such as to cause students to detach themselves from the society in which they will have to live. It was a Guianese student at U.C.W.I. who told me that in some Government posts in rural districts in B.G., "one would be the only graduate in the area", with the implication that society was therefore reduced, like the Duke of Dorset's club in *Zuleika Dobson,* to a group so exclusive that it had only one member. An industrial society cannot function with such attitudes prevailing — which is one good reason for having an industrial society.

Associated with this is the problem that many Guianese students who train abroad fail to return, partly because of the lack of opportunity in B.G. As the society transforms itself into a genuinely expanding economy this cause will become less valid. But in the awkward transitional phase, the Government must be firm in requiring that any

grants that it makes be conditional on students returning to B.G. for a minimum of say, five years, the penalty being repayment of the whole grant at a fairly stiff rate of interest in a short time. It is true that many students will be unhappy at the prospect of returning, but I would take the — perhaps cynical — view that the dissatisfaction which many of the returning students will feel with Guianese society, in comparison with those in which they studied, will lead them to be a potent force for change. It is a corollary of this "tough" policy, however, that returning graduates should immediately be well utilized at good rates of pay; the existing civil service, and even business attitudes to such technically qualified personnel apparently leave much to be desired. Certainly many technicians feel that they are not being given enough opportunity; even if this is objectively false, the feelings that they have are themselves facts, and do not make for efficiency.

[18]. The following recommendations are influenced by the excellent work of the Surinam Bureau Landelijke Opbouw (Bureau of Rural Development), which is one of the Government planning organizations. Its functions are those described in the text; it does not execute projects, leaving this to the agricultural departments. While it has not yet overcome many of the difficult problems in this field, distinct progress has been and is being made in getting a higher income return on agricultural investment. The staff of this bureau consists of one or more of agricultural engineers, agricultural economists, soil scientists and sociologists.

[19]. Not enough energy seems to be going into the exploration of alternative crops for the coastal plains of British Guiana. Thus no mention is made in the Programme of bananas, whereas Surinam (admittedly with the advantage of the Common Market — but then B.G. has Britain and Canada) is putting a third of her planned new acreage into bananas, as well as a third into rice. The soil conditions do not appear to be essentially different. Again, it is widely stated that cocoa does not do well on the coastal plains. Yet the IBRD Mission to Surinam recorded (p. 134) that 'the heavy, generally badly drained soils in which cacao is found [in Surinam] are such a contrast to the "deep, well-drained friable loams" which agriculturists usually recommend for tree crops that it is surprising that the cacao tree does so well in Surinam. The Mission saw trees 40 and 50 years old — witch-broom infected, it is sad to add — and there is no doubt that the tree grows well on the coastal plain. Its root systems have adapted themselves to a heavy clay, with barely two to three feet of dry soil in the dry season above the permanently wet zone which we may crudely call a "water table". Instead of the normal, long main tap root, the cacao tree here sends out fairly strong laterals with numerous fibrous roots, or has a root system composed almost entirely of a net of fibrous roots. In those cases where deeper roots had penetrated the water table, the roots had died'.

[20]. An example of the misuse of the price mechanism is the machinery pool maintained by the Government, which leases out machinery at a subsidized rate. This has three effects: farmers do not use the machinery as intensively as they would if it were dearer; they also prefer to wait in queues for the machinery rather than pay higher prices to private hirers of machinery, a fact which inhibits private investment; and the government loses money. Similar remarks apply to government housing. Very often paternalistic governments are not aware of the inhibiting effects on private investment of their price policies. Much small investment in such things as housing, transport and machinery is frustrated by this paternalism; it is small wonder that the investor either hoards, or puts his cash into useless occupations like shopkeeping, or vicious ones like money-lending; or puts it around his wife's neck, in the form of jewellery.

[21]. It is sometimes said that rice farming is essential since other crops (e.g. cocoa and coconuts) have a long gestation period. But this is simply a matter of good credit policy, and of ensuring that each farm is itself suitably diversified. It seems odd to have a long-term programme for settlers who have such short horizons; it should be an essential part of planning to enable the farmer to lengthen his horizons.

[22]. One crop that might well repay considerable investigation is tea, the long-term demand for which would be favourable. This would seem to be best cultivated in the Pakaraima mountains of the south-west. It might be worth a determined effort to interest one of the large British or American tea companies, although of course there are real problems, the most important of which is probably the development of mechanized plucking and weeding, since British Guiana is — one hopes! — unlikely to be a source of the very low-paid labour force usually used in such countries as India and Ceylon.

[23]. Perhaps a word should be said about sugar in B.G. It seems unlikely that there will be any expansion in acreage, much more likely that the acreage will shrink, perhaps rapidly. It will then be necessary to ensure that these acres are not left idle. Again

this is best done, as in the case of all idle lands, not by direct compulsion, but by using the tax system to ensure that it is very costly to keep it idle. It was suggested to me in B.G. that this might suitably be done by putting a tax on all land, and letting people claim exemption if it is in good cultivation. This would put the onus on the owner, and would save the insuperably difficult administration problem of fair assessment. By making the tax progressive, with an exemption limit of say 10 to 20 acres, one could reduce considerably the number of claims for exemption that would be made.

This sounds a tough policy, and it is. But drained and irrigated land is a scarce commodity in B.G., and taxing is a fairer and more efficient method than direct physical controls in driving such land into actual cultivation.

24. The *Report* is very pessimistic about industry in general and export industry in particular (p. 24); "Such cases are rare. Most new ventures start on a home-market base and hope to expand later". The author does not seem to have taken the trouble to acquaint himself with the recent trends towards export industries in Puerto Rico and the West Indies. This is borne out by his statement (p. 23) that "Competitive bidding by Caribbean countries for new capital....[by tax holidays]....seems to me to have reached absurd heights",...."The five-year tax holiday....[which B.G. already has]....and the right to duty-free imports, followed by special depreciation allowances, all mean a loss of Government revenue"; its conclusion "is to stop the policy of encouraging industry by tax holidays". This ignores the rather elementary consideration that if the firms refuse to come in the absence of concessions, one has no tax revenue to lose, and one loses in addition the incomes (and personal and indirect taxes) generated by the firm's activities. And the evidence of Puerto Rico is very strongly that firms *are* initially attracted by the idea of tax concessions, even though, having come, they may well remain for more firmly-based reasons.

25. Compare D. F. Ross's paper (*Social and Economic Studies*, 6, 1957) p. 340. This paper is a useful introduction to Fomento's pioneering techniques. It is true that Puerto Rico has benefited from its customs union with the U.S.A.; but this union does have the drawback — if it is one — of ensuring that its industries are efficient enough to be competitive with the U.S., plus the disadvantage of having to conform broadly to U.S. minimum wage legislation. Puerto Rico has had great advantages, but this should not disguise the fact that she has made brilliant use of them. It is no good complaining that such advantages are unique, until one has tried — also brilliantly — to see what one can do in this field; Jamaica and Trinidad are doing quite well.

26. There might also be considerable economies of scale, and desirable uniformities of incentives, in attracting foreign entrepreneurs if the various Industrial Development Corporations could work in harmony.

Tourism could play a useful role in the industrialization process. Although it is unlikely that anyone would wish to visit the coastal regions, the interior could usefully be exploited, especially if there were a chain of small, simple but well-run guest-houses at interesting spots in the mountains and savannahs. This would yield income of itself, while the people attracted would mostly be the more adventurous members of the executive class, some of whom might be induced to invest in the country.

27. The Brokopondo project will yield power at a cost of the order of 3 mills per unit (0.3 U.S. cents); this is certainly cheap enough for aluminium smelting. By judicious use of discriminating tariffs, exploiting daily load factors, it could be made available even cheaper for some chemical industries. The Brokopondo project, moreover, is on the Surinam River which, like the Demerara, is not the largest river in its territory. Other rivers in Surinam, such as the Marowijne and the Corentyne have much larger power potentials; the latter could perhaps be exploited jointly with British Guiana.

28. There have also been some general surveys by the U.K. power consultants, but these have been conservative. It might be better to try in addition other consultants from countries such as France and the U.S., which have more experience in hydro-power projects, so that the various assessments could be compared. This was Surinam's method, and it appears to have worked well.

29. One reason for this small expenditure lies partly in the intention to bring in a U.K. group to build and operate thermal stations as a self-financing project. This is a very sensible idea for the short to medium run, since it will be necessary to have power for the increasing demands from agriculture and the new light industries. But the long-run supply of really cheap power (which cannot be obtainable with present —. or even probable future — thermal technology) is essential for heavy industry; and a start must therefore be made immediately.

The Programme does not exclude the possibility that a number of these self-financing industrial projects may be implemented; indeed the new glass factory falls into this category,

and others, such as a small hydro-scheme for domestic consumers, may well be negotiated during the plan period. These are a welcome addition in some ways, but the danger is that, by concentrating on those projects that will yield high rates of interest and profit, the Government may miss the much more important criterion of income-generating potential, while there may be a tendency to misuse the price mechanism either to earn high Government revenue, or, on the other hand, to over-subsidize such things as rural electrification. There is also the danger that this approach will probably lead to a very "spotty" industrial structure, to the detriment of a carefully planned pattern. These projects can certainly play an important part within a complete frame, however; the concern of this paper is to emphasize the need for intelligent creation of such a frame, for the industrial history of underdeveloped countries is littered with the debris of projects that stagnated or broke down after an auspicious start. And one main reason for this has been the lack of attention paid to the *structure* of economic activity. On this subject, see the profoundly stimulating book by Albert Hirschman; *The Strategy of Economic Development*, Yale, 1958.

30. The World Bank is often spoken of as an alternative source of finance, and certainly could be. But the generation of very large quantities of cheap power clearly calls for a very large-scale user, such as an aluminium or steel plant; and since large foreign capital is required for this anyway, it would seem sensible to try hard first to arrange a "package deal", rather than going into debt oneself.

31. For example, care must be taken by those in charge of educational planning that sufficient supplies of skilled labour, at all levels of the industrial hierarchy, are available at the required times. It is very important, in this context that Guianese should participate fully at high levels of management in the foreign corporations, as, for instance, Surinamese do in Suralco.

32. The Programme is very misleading in its table on p. 10, which purports to show that $4.7 m. is to be spent on "Surveys — Geological, Topographical and Aerial". In fact, $1.9 m. of this is in other types of survey, consisting of $0.7 m. for the hydrological surveys already mentioned (mainly for irrigation) and $1.2 m. for "Detailed Topographic surveys for project works" (p. 14) — again for drainage and irrigation; both if these items should therefore go in the Agricultural Sector, and have been so allotted in this paper's Table 5.

33. The existing C.D. and W. method of individual Colonial Office approval for almost all projects, makes difficult the financing of a long-term programme of the type sketched here. Once general approval has been given for the revised plan, a system of block grants would appear to be much more efficient. It is true that the C.D. and W. method more or less ensures that the money is spent honestly, but it does not guarantee that it is spent well. For example, long-term plans for small countries often need sizeable, uncommitted funds, to take advantage of unexpected changes, and this is difficult to arrange with the existing methods. There is a considerable tendency to fritter the money away in a large number of small projects, many of them of the palliative "welfare" sort, rather than on a smaller number of projects aimed at laying a firm productive base.

34. The planned expenditure in each of the Programme's years is: 1960, $24.8 m.; 1961, $22.7 m.; 1962, $23.7 m.; 1963, $20.4 m.; 1964, $18.9 m. Since the construction projects on alumina and bauxite will cease by mid-1962, there appears to a real danger of simultaneous phasing of public and private investment, which could produce a recession of itself. This is just one example of the importance of planning for the whole economy, in the sense of being aware of what is likely to occur in each sector and adjusting policy accordingly.

35. This is not the place to go into the problem of the exact position of the planning staff in the Government apparatus. But clearly it must be a body of central importance, with direct access to the leading ministries and the cabinet. The problem in the present constitutional set-up in British Guiana is that there is no chief minister with the usual powers. The revised constitution must very carefully take the problem into account, since it is crucial for sensible and effective planning. Nothing is worse than a planning staff to which little importance is attached; this happened in Ceylon, and the results were disastrous.

36. Many people who disagree with British Guiana's development plans nonetheless believe that her economic future lies in developing an efficient export agriculture in lines other than sugar and rice. Such a programme would probably imply the "Hawaiinization" of the sugar industry, and the opening up of riverain lands, and of land further in the interior.

I do not believe that such a programme is at all irreconcilable with that suggested here; the two approaches are complementary rather than competitive. Much of the

exploratory work for heavy industry will not cost very much in terms of the amount of capital available, and the actual execution of most of the industrial projects will probably be carried out by private capital. The projects that *will* take a good deal of public investment (interior roads, air communications, water transport, electrical distribution, education) are for the most part just as essential to a modern, efficient agriculture as they are to modern industry. Actually I would envisage a good deal of agriculture following on the opening-up of the interior that industry should bring about. The approach suggested here, moreover, already covers efficient agriculture on the coastal plains.

My main doubt about the line of attack sketched in this paper (apart from the technical possibility that a heavy industrial base may not be feasible) is that Guianese society may not be sufficiently cohesive to withstand the considerable strains that rapid development will involve. But with a population growth of 3 percent a year, she will be even less able to withstand lower rates of economic growth, especially as she is vulnerable to swings in the terms of trade.

It is true that diversion of funds into light industry (*via* the proposed Industrial Development Corporation) does compete directly with agriculture. But this expenditure seems to me essential if the rapidly growing urban unemployment is to be lessened substantially. It must be remembered that it is uncommon for development to proceed with large-scale migration from town to country; the reverse movement is more usual.

This growing urban unemployment is a very real danger. Already in 1956 McGale reported that 54 per cent of the labour force in Georgetown between the ages of 14 and 18 was unemployed, compared to a rate of 41 per cent for the whole survey area; 38 per cent of the 18-20 age group in Georgetown were also unemployed in 1956; and "real" GDP has risen by only 4 per cent since then (including the terms of trade effect), compared to population's 10 per cent. As the large cohorts born in the post-malaria eradiction period come on to the labour market (as they will from 1960 on) these already very high percentages will climb still higher, and what could be a real source of rising national production may well degenerate — quite quickly — into a disaffected and explosive mob. Of the total of unemployed young persons in B.G. in 1956, 63 per cent had never worked at all; the corrosive effects on their lives of such an experience are very real. A determined effort must be made to raise urban juvenile employment and incomes, and light industry seems well fitted for this. One should examine such possibilities as the coupling of further education with industrial work, e.g. by shift working in both schools and factories.

The Business Of Higglering In Jamaica[a]

By

MARGARET FISHER KATZIN

The purpose of this paper is to describe the internal distribution system of Jamaica, by which produce grown on small farms for sale locally moves from producer to ultimate consumer, and to assess its efficiency as a marketing device.[b] The system functions mainly through middlemen, nearly all women, who are variously called "higglers," "vendors," "speculators," or "wholesalers", but the first designation is most commonly used as a generic term to describe any trader in agricultural produce. Actually a chain of middlemen, of varying lengths, handles agricultural produce as it goes from rural producer to consumer. Some middlemen grow at least part of the goods that they sell and nearly all consume some part of the goods that they buy. The term "higgler", as used here, refers to a trader who is a true middleman in that she buys almost everything that she sells and her trade purchases are made for resale.

Internal exchange takes place mainly at markets, of which there are three types: government-supervised, "free" and roadside. There are 87 government-supervised markets, all of which are enclosed and assess fees from sellers. Of these, Coronation Market in West Kingston is by far the largest and functions as the hub of the internal exchange system. It serves Kingston and the surrounding area, which has the island's greatest concentration of population, and also is a distributive centre for goods circulating in the internal distribution system. Since most goods are accompanied by the trader who sells them, Coronation is the one place where all types of traders from all parts of the island may be found.

TYPES OF HIGGLERS

After three months of interviewing in all parts of the market on all days of the week and the important nights for wholesale trading, most sellers were found to fit into the following groups on the basis of place of residence of the seller, source of goods, regular occupation, number of hours spent in

[a]This paper is a part of the writer's doctoral dissertation, entitled "Higglers of Jamaica", for which data were collected during a nine-month field study in the fall of 1956 and the spring of 1957. Many persons in Jamaica, in addition to a number of higglers, gave valuable assistance to the writer, particularly Prof. H. D. Huggins, Dr. M. G. Smith, Mr. Russell LeWars, and Mr. W. D. Burrowes. Dr. Sidney Mintz, of Yale University, also made helpful suggestions.

[b]Most of the material for this paper was gathered at Coronation Market and in a rural community, that is here called "Riverside", which is approximately 20 miles from Kingston in rural St. Andrew. Other markets were also studied for short periods both in Kingston and some rural areas.

buying and selling and the amount of invested capital. The following classification does not claim to be exhaustive, for there is no limit to the ingenuity of Jamaicans in finding ways to earn a few shillings in trade.

A. Rural Residents.

1. *Country People;* women who sell produce grown by someone in their own households.
2. *Weekend Country Higglers;* women from areas within 25 miles of Kingston, who buy wholesale in Coronation and sell there at retail.
3. *Country Higglers;* women who buy produce from growers near their rural homes and sell it in Coronation.
4. *Planter Higglers* or *Speculators;* mostly men who may grow part of their stock, but differ from country higglers principally because they cover wider distances to buy a large quantity of one commodity and transport it a greater distance, often over 50 miles, to market.

B. Kingston Residents.

1. *Tray Girls;* women who carry their total stock on a tray or flat basket.
2. *Weekend Town Higglers;* women who buy wholesale in Coronation and sell there at retail on Thursdays, Fridays and Saturdays.
3. *Town Higglers;* women who rent market stalls for which they pay a weekly fee that entitles them to sell at any time the market is open.
4. *Vendors;* town higglers who rent several stalls and specialize in one item, such as tomatoes.

Country people are found principally in country markets, but many come to Kingston if they live within a radius of 25 miles. While they sell at retail in country markets, few do so in Coronation. They prefer to give their goods to one or more town higglers, whom they know, on their arrival at the market and wait to collect until a few hours before they intend to leave the city. Nearly all Jamaican children learn to sell by accompanying their mothers to market. If the best market is more than 20 miles away, few rural women have enough produce to make a regular trip worth while, but nearly all go several times each year. The rest of the time they sell their small weekly surpluses to country higglers or ask a neighbour to sell it. Country people might be called planter higglers but, strictly speaking, they are not higglers since they do not buy the goods that they sell.

Weekend country higglers are poor rural women who need to earn cash to supplement the family income. They come to the market on Thursday afternoons, bringing any small quantities of produce that they may have for sale, and buy goods, on credit if possible, from country people or country higglers and sell at retail in the market. As they sell out one lot, they buy more, and continue the process until noon on Saturday. By that time, if they have been lucky, they will have made a profit of a few shillings with which to buy necessities and to pay the expenses of the trip. Most weekend country higglers live within a 10-mile radius of Kingston, as their earnings are too small to pay the costs of a longer trip.

Country higglers are an essential link in the internal distribution system because they buy produce in remote rural areas and take it to urban markets. The growers may let the country higgler take the goods and wait for payment until she returns or until the following week, or may demand all of the agreed price, or part of it, at the time of sale. The amount of credit extended varies with the customs of the particular locality, the type of produce and the relationship between higgler and grower. Most country higglers take their loads to markets at some distance from their homes because they could be undersold in the local market by country people selling their own crops.

All country higglers have regular customers[a] among growers and town higglers and weekend town higglers. The number of customers waiting to buy from any particular country higgler on any given trip will vary with the scarcity of the goods that she is known to sell, but, if she comes to the market regularly, there will always be some who will buy from her even if her goods are plentiful, because they want to keep her as a source of supply in time of scarcity. The experienced country higgler deals with town higglers with sympathy and understanding so that they will continue to buy from her, but, at the same time, she guards her own interest against them.

A country higgler may sell to town higglers or at retail, depending on the contacts she has built up and the method she has found best. One who regularly sells to town higglers will give out her entire load within an hour of her arrival at the market, unless there is a glut. She only sells at retail if the demand for her goods is so low that town higglers will not take it all. Such a woman prefers a smaller but certain quick profit to the greater profit and also greater risk of selling at retail. Those who sell at retail have built up a dependable group of house buyers who take most of their goods on every trip, but they must depend on passing buyers to sell the rest. Most of those who sell at retail come in on Thursday to allow themselves two full days to dispose of their goods. They are much more at the mercy of thieves and ruffians than are those who sell at wholesale, for they sit long hours with their goods spread out before them.

Country higglers co-operate with other types of traders in several ways. They always extend credit to town higglers and weekend town higglers, as do country people, and only collect for their goods just before they leave the market. Country higglers buy their household supplies, whenever possible, from town higglers who let them use stall space, help guard the country higgler's goods or sell for her in her absence. They may lend money to

[a]The term "customer" is used by Jamaicans as a generic term applied to anyone with whom one has regular business dealings. Higglers call both those who sell to them and those who buy from them "my customers". One town higgler said: "The house buyers who buy from us are our customers, but country people call us 'customer' and we call them 'customer'. We are really the customer because we do the buying, but I don't know what we would call them, so we still call them 'customer'." M. G. Smith cites a farmer who calls his regular workers his "customers" (9).

each other and often belong to the same "partners".[a] Both weekend and town higglers co-operate with each other in much the same ways and all exchange market information.[b]

Tray girls are mostly poor, young women who sell garlic, guinea pepper, black pepper and other spices in penny and two-penny packages. The spices are purchased by the pound from wholesale merchants and broken up into smaller units. Usually a girl sells from a tray only until she has made enough contacts and accumulated enough money to buy stock to sell from a station or stall. A few almost destitute older women eke out a bare living selling from trays.

Weekend town higglers buy regularly from country people or country higglers and sell at regular places in the market, many in space that was originally intended for the use of country people. A few weekend town higglers specialize in a particular line if they can arrange for an assured supply, but even these diversify their stock to reduce the risk. One weekend town higgler, whose operating statements were recorded, specialises in country peppers, but she also handles carrots, escallion, thyme and, intermittently, coconut oil. When her supply is sufficient, she sells at wholesale to other higglers.

Town higglers are the regular stall holders whose names are listed in the books of the market and who pay a weekly fee which entitles them to sell from the stall at any time that the market is open and to use the storage space beneath the stall. The basic stock of a town higgler is semi-perishables, but most of them will buy nearly any type of produce from country sellers, if the price is right. Except for some "Irish" potatoes, dry onions and red kidney beans, which may be bought from importers, the town higgler's entire stock is purchased from country people or country higglers. Established stall holders have built up a clientèle among country people who come directly to them each time they come to the market, rather than search among town higglers whom they do not know for the highest price obtainable.

Most town higglers are in the market six days of the week and at least two nights, but if goods are scarce they will stay more nights to be on hand to buy from any country people who might come in. They buy their meals from the vendors of cooked foods or have them brought from their yards.

Town higglers vary in capital, experience, business ability and size of clientèle. At one end of the scale are those like Miss T, who occupies one stall, has a small clientèle and has been selling in the market for eight years. She has little capital and a total stock of a few quarts of beans, some dry onion and garlic and a few bunches of vegetables that she obtains on credit. At the top of the scale are the most prominent "King Street" stall holders

[a]An informal mutual savings institution that is widespread in Jamaica. An account of "partners" is given in (5).

[b]This refers only to higglers on nearly the same level of experience and business ability. It is well known that some town higglers take advantage of the ignorance and naivete of country people.

who have a large clientèle, three or four stalls advantageously located, a large and diverse stock and thirty years or more of experience in successful higglering.

"Vendor" is the term preferred by the larger operators, mostly men who specialize in one item, such as tomatoes, and sell both retail and wholesale from the four or five stalls which they rent. Since most of the tomatoes are grown in the distant parish of St. Elizabeth, vendors have standing arrangements with speculators and planter higglers who bring in hundreds of pounds of tomatoes at one time. The speculator could not bring large quantities of perishable item like tomatoes into town unless he were certain that a vendor would take them off his hands. The vendor keeps a notebook with a record of his receipts from each speculator and does not pay him until the following week.

Of these different kinds of traders, those most essential to the internal distribution system are the country higglers, the town higglers and the weekend town higglers. Although some goods are marketed by other means,[a] the fundamental structure of the internal distribution system can be described by a detailed analysis of the business activities of these three types of higglers.

The Business of Higglering

The following analysis of the business of higglering is drawn mainly from the operating statements, covering more than a year, of five country higglers and a weekend town higgler, that were collected and recorded.[b]

Country Higglers

The operations of the five country higglers can be taken as representative of the pattern of higglering practice for their rural area because the five of them have bought goods in the region for an average of 30 years each. They live in three communities that are located within a radius of 8 miles in the uplands of Eastern St. Andrew and across the border in St. Thomas and draw their goods from the same geographical region, but each buys from a different district within the area. All of them have dealt for years in the root vegetables that are grown by small farmers to be sold in the internal distribution system, and all take the truck to town from a spot near the St. Thomas boundary.

[a]Two vegetable producers' co-operatives were operating in Jamaica at the time of the field study, one in St. Elizabeth and one in St. Thomas, but they marketed a very small quantity of goods compared with that which moves through the higglering system.

[b]In late 1956 and early 1957, many lower-class Jamaicans displayed hostility to and distrust of the political party then in power to the extent of being reluctant to co-operate in any way with outsiders seeking information. To most higglers, a stranger in the market asking questions and recording information about expenses, costs, turnover and earnings could only be gathering material for the government to utilize in some way to their disadvantage. Worse still, interviewing of higglers selected at random was made impossible by market idlers who followed the interviewer about making violent threats toward any higgler who appeared to be willing to answer questions. In the search for data on business operations, many town and country higglers were approached. Several, besides the six agreed to submit a record of their transactions, but the statements were not used because checking revealed them to be inaccurate.

The five country higglers are: Miss A, who buys in three communities at an average distance of 6 miles from her home and sells wholesale in Coronation on Friday nights; Miss B, who buys from farmers in her home district and in two other communities each 5 miles distant from her home and sells wholesale and retail in Coronation on Thursday nights, Fridays and Saturdays; Miss C, who buys in her home district and sells wholesale in Coronation on Friday nights; Miss D, who buys in her home district and sells wholesale and retail in Coronation on Friday nights and Saturday mornings; and Miss E, who walks with a donkey and buys from three hilltop communities that are, on the average, 6 miles from her home, and sells wholesale and retail in Cross Roads Market on Thursday nights, Fridays and Saturday mornings. If her load is too large for her to take on Thursday, her 22-year-old son sends part of it to her by truck on Friday. However, it should be emphasized that in the hills of Eastern St. Andrew and bordering St. Thomas, as in most of Jamaica, the distance in miles between two points is no indication of the time and effort required to carry loads from one point to another. Paths are narrow, precipitous, irregular and slippery both in wet and dry weather.

TABLE 1. DATA ON FIVE COUNTRY HIGGLERS.

	Miss A	Miss B	Miss C	Miss D	Miss E
Age of higgler	53	45	47	42	54
Years of higglering regularly	38	28	31	14	39
Buying days per week	2	2	2	2	2
Selling days per week	1	2	1	1	2
Help of others:					
Buying and preparing load	2d.; husband	2d.; husband	husband	husband	son; mule
Market trip	1d.	1d.	—	—	1 girl
Conjugal condition	Married	Married	Com. law 3 years	Married	Widow
Contributions to household	Over half	Over half	Half	Half	Over half
Number of children	4	3	2	0	2
Taught higglering by:	Mother	Mother	Mother	Sister	Friend

As shown in Table No. 1, all five higglers spend two days of each week, Wednesday and Thursday, walking and buying. Each has the help of at least one other person in the household in carrying the goods, washing and preparing them for market. Three of them spend one full day each week on the market trip; two spend two full days each week. All five have had many years of experience at successful higglering. All went to market with their mothers as young children, but Miss B and Miss D did not take up higglering until after they were fully adult. Miss D. worked for six years for wages in the fields before she began to sell with her sister, who was a higgler, and only later did Miss D take up higglering as a regular occupation. None of the others has ever earned money at any other occupation. Miss A, Miss B and Miss C learned higglering from their mothers, all of whom were higglers. Miss E has a sister, two years younger than herself, who also is a higgler.

Miss A takes her 13-year-old daughter to the market with her, as she used

to take another daughter, who is three years older, but she does not plan that either of them will become higglers. She expects to stop taking this daughter, as she did the other, when she is old enough to be influenced by the bad market environment. Miss B has no definite plans for the daughter who regularly goes to market with her, but it is probable that she will start higglering for herself within a year or two. She has been so well schooled in every aspect of higglering that her mother sometimes sends her alone to the market with her load. Miss C has no daughters, Miss D has no children and the one daughter of Miss E is a dressmaker.

Before proceeding to the analysis of the operating statements, the meaning of the categories should be made explicit. The operating statements, as recorded in the field, included supporting data that has not been reproduced here because of lack of space. The complete statements include a record of each buying transaction, specifying the type of goods, the quantity, the price and the name and place of residence of the producer; a breakdown of total expenses into the components of passenger fare, freight charge, market gate fee and handcart fee; details of business transactions completed in town for rural neighbours and suppliers, specifically, the name of the owner, value and type of goods sold for others together with the price of each item, and a listing of the value and types of goods purchased for others; and personal business for the higgler and her family aside from the dealings involving the market load.

In order that the data of business operations would include only items purchased for sale, we have subtracted the value of goods taken from the higglers' fields and sold with the load and goods sold on consignment for others, on which the higgler did not receive her usual margin of gross profit. However, it is impossible to subtract the extra expense incurred by the higgler in taking such goods to market because expenses were not recorded separately for such items. Therefore, the total expense that is shown as being incurred with each week's market load is, in some cases, overstated. The additional freight, market and carriage fees seldom aggregate more than 2/-, but each higgler is careful to keep these items separate and to collect the proper amount from the owner of the goods. The higgler incurs no additional monetary expense by purchasng goods for others in town because no freight fee is charged on the return trip.[a]

Analysis of the operating statements of the five higglers, combined with information garnered from other sources, reveals eight basic facts about their business activities.

1. All five pay cash for all goods, with the exception of large quantities of red peas.
2. The time spent in higglering is almost exactly the same for a small load as for a large one.
3. Minimum operating expenses are very high.

[a]This is not true for other parts of the island where freight charges are assessed and collected on the return trip.

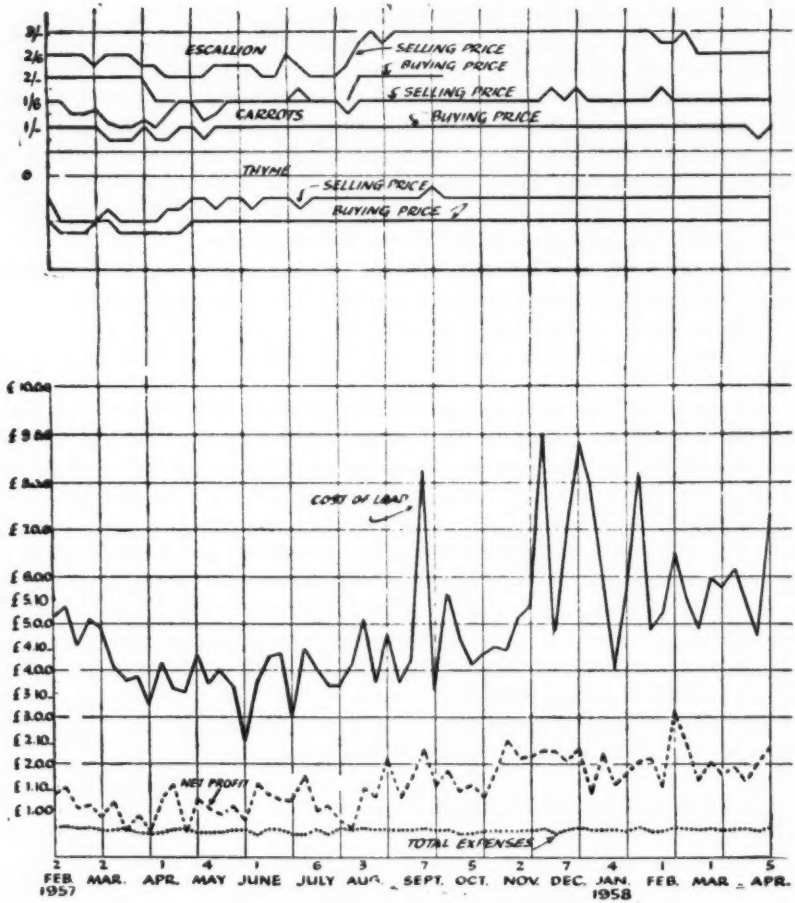

Figure 1 — Business Operations of Miss A

4. Operating expenses are relatively constant and do not vary proportionately with the value of the load.

5. Current market prices are known to grower and higgler alike.

6. Growers grant that the higgler is entitled to a certain gross profit as compensation for her time and expense.

7. The gross profit margin accrues to each unit, i.e., 6d. per bundle of carrots. The margin per unit remains the same regardless of the number of units.

8. Therefore, *the larger the load the larger the higgler's net profit.*

1. None of these five country higglers routinely buys goods on credit or borrows money, entailing the payment of interest, with which to buy load.

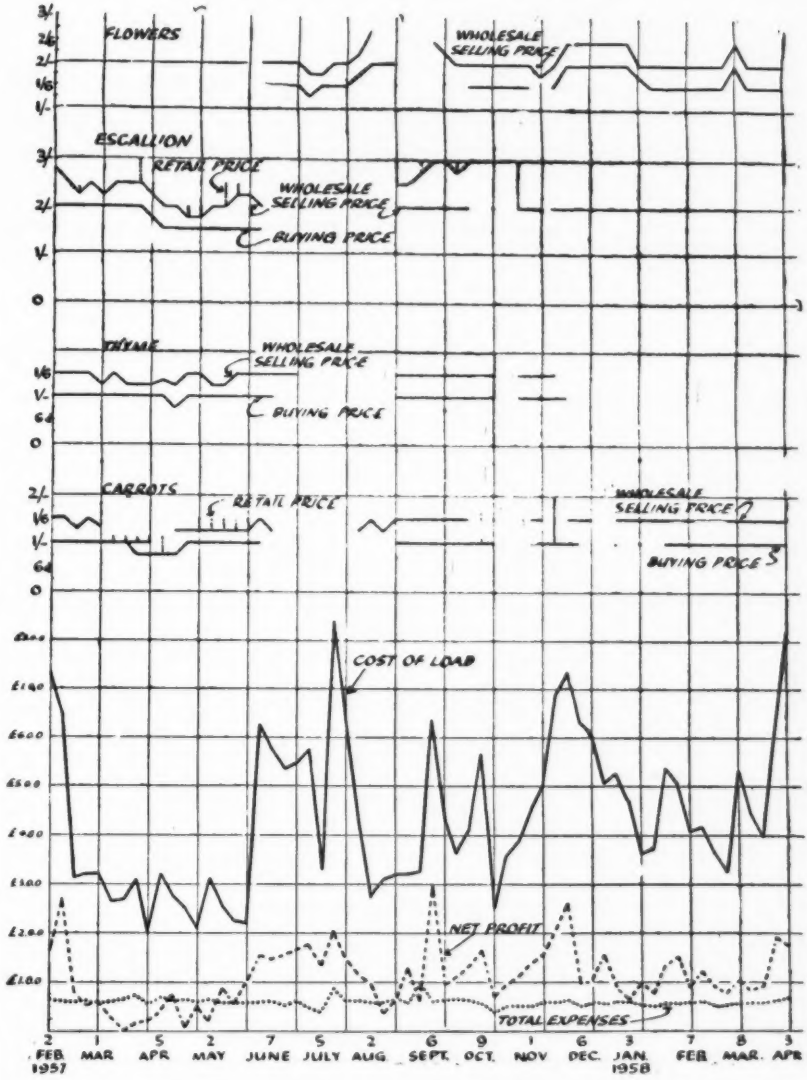

Figure 2 — Business Operations of Miss B

Each of them built up her operating capital by starting with only a few shillings and adding profits to capital over the years. Miss C currently borrows money for higglering, but in lieu of interest, she purchases supplies for the lender's shop in town and takes the goods to him in the country, saving him the freight charges. Other higglers in the area report that they have

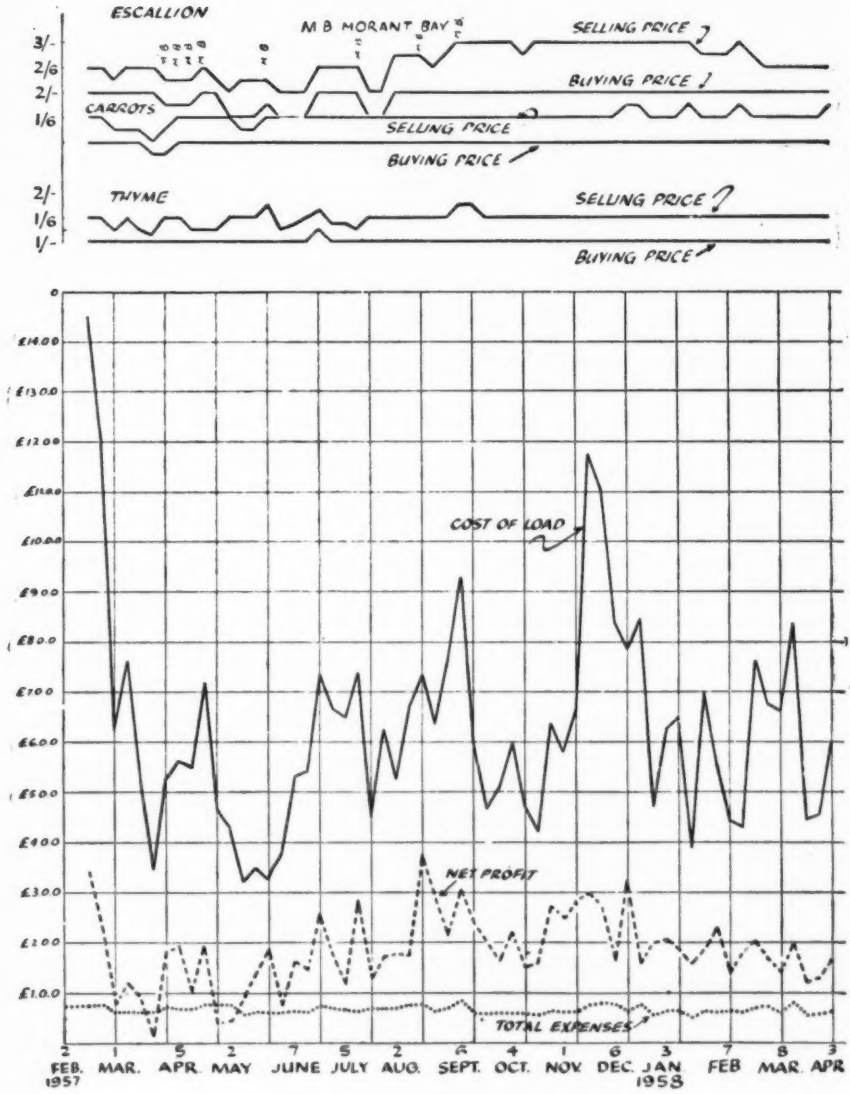

Figure 3 — Business Operations of Miss C

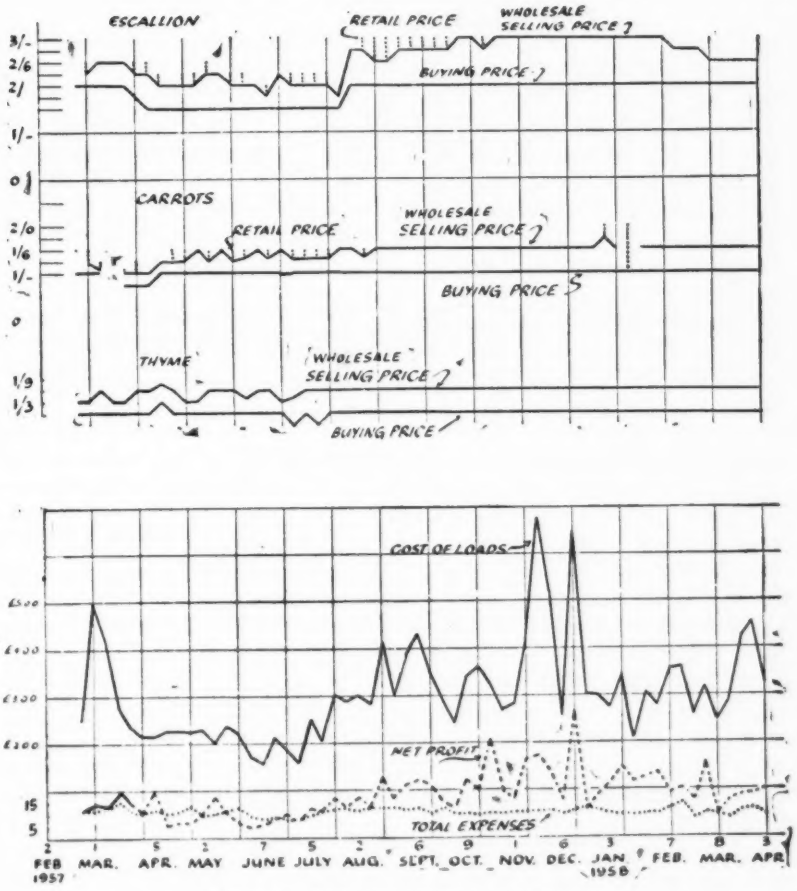

Figure 4 — Business Operations of Miss D

borrowed money from friends, relatives or a shopkeeper without paying interest. Only when they (other higglers in the area) are desperate do they borrow from a woman of the district who charges interest. The five higglers take goods on consignment only when they are offered a large quantity of a high-priced item, such as red peas, when they are out buying load without sufficient funds to pay for it. If the grower lives at an inconvenient distance from the higgler's house she gives him the money on the next trip, but if he lives nearby, she sends it to him the day following her return from the market.

2. The time spent in higglering is almost exactly the same for a small load as it is for a large one. As shown by Table 1, all five higglers spend the same amount of time and effort each week calling at the yards of their suppliers

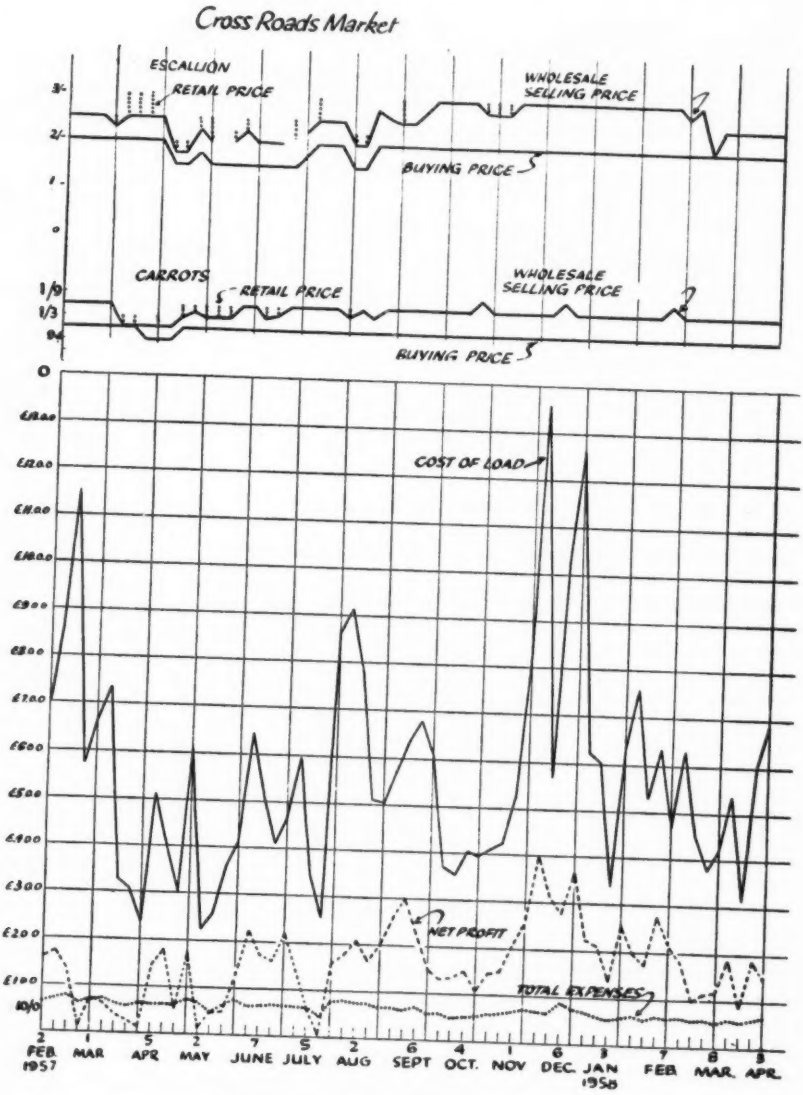

Figure 5 — Business Operations of Miss E

and going to the market regardless of the size of the load, because the time and effort are mainly expended in travelling. The same ground must be covered to call upon each of the suppliers regardless of the quantity of produce they have to sell.

The truck schedules are the most important factor determining the time

spent away from home on the trip to the market. Each woman must leave her home in time to be at the truck stop well in advance of the scheduled departure time, wait patiently during the long periods required to allow other passengers to board, and remain in Kingston until the truck leaves for the last return trip of the day on Saturday, because only on that run does the truck go all the way to the end of the road. All five of the higglers buy large quantities of groceries in town, in addition to purchases made for others, so that their baskets are very heavy on the return trip and all want to ride on the truck to the point nearest their homes. Thus, Miss A does not leave the city until three o'clock on Saturday afternoon, although she usually finishes selling within an hour of her arrival at the market and could complete all of her purchases within an hour or two in the morning.

3. Minimum operating expenses are high because of the irreducible item of 5/- passenger fare and the fact that freight charges are very high for the 19-mile distance. Therefore, the minimum load which a higgler can take to market and be certain that the gross profit will exceed the expenses is large.[a] Years ago, when three of the five higglers began to trade regularly with very little capital and, therefore, small loads, they walked to town carrying the load to minimize their operating expenses. In the operating statements, the few instances when a load barely covered the expenses were invariably those showing a very small load. The graphs of the business operations of all five higglers indicate that a load which costs less than £4 is likely to yield little profit and one less than £3 probably will yield none. With smaller loads, the higgler must resign herself to receiving little or no compensation for her time. That higglers are aware of the risk involved in taking small loads to market is indicated by the fact that the number of higglers decreases very sharply when vegetables are scarce.

4. The total operating expenses do not vary proportionately with the value of the load, as is shown by all of the graphs. For loads varying in value from £3 to £11, Miss C incurred expenses fluctuating between 10/- and 15/-, and the other four graphs show a corresponding relationship. For instance, Miss A took a load to market on January 19th for which she paid £2. 9. 0 on which she incurred a total expense of 10/-, and another on November 23rd costing £9. 0. 4 on which the expenses were 12/6. Thus, for a load over three times greater in value, the expenses were only 21 per cent greater.

5. Farmers are at no disadvantage when discussing prices with higglers because of the efficiency of the informal market intelligence network. Farmers congregate at the truck stops on Fridays and Saturdays where the principal topic of conversation is the prices of locally-grown goods in town

[a]Mintz states that a woman who takes a load from St Ann to Kingston "estimates that she must gross about £5 to make her trip worth while; that is, £1 or less profit, £1 or more for expenses, and £3 for reinvestment in the next trip." In this quotation "gross" is used for "total sales". We use "gross" for total sales less cost of goods sold. Thus, the above higgler's "gross" is not £5 but £2, which is not significantly different from the operations of St. Andrew country higglers (6, p. 21).

markets. Also, some country people always go to the market every week and return with information about prices. Thus, the growers often know the prices received by the higglers for their goods before the higglers return.

6. All higglers, growers and others in the community with whom the matter was discussed, agreed that the higgler is entitled to a specific margin of gross profit to defray expenses and to compensate her for her time and effort.[a] A particular gross profit margin is associated with every commodity that is sold to higglers in the region. Thus, if carrots are selling in the market for 1/6, growers consider 1/- to be the proper price that the higgler should pay them. They do not try to play one higgler off against another to increase the price that they receive and higglers do not bid against each other by offering to give part of the gross profit to the growers.

Where cash is paid for the load, the grower does not expect to share in the extra profit if the higgler should find the market "running bright" and receive more than the margin, but neither does he consider it his responsibility if she should "meet bad market" and be forced to sell for less than the customary margin.

According to the records of the five higglers, the customary margins of the commodities which constitute most of their stock are: 6d. per bundle for carrots, thyme and beets; 3d. per bundle for turnips; 6d. per quart for red peas; and the margin for escallion varies between 6d. and 1/- per bundle. Other commodities that do not come into crop as regularly as the above listed items yield gross profits that are not so constant, rather they fluctuate about a certain amount. Usually the gross profit is greater near the beginning and end of the crop season. Two of the latter type of commodities are salad tomatoes, which yield an average gross profit of 3d. per pound, and cabbage, which brings an average gross profit of 2d. per pound.

The graphs of the commodity prices indicate that the prices paid to farmers and those received by the four higglers in Coronation and the one in Cross Roads Market were remarkably uniform for long periods.[b] The gross profit for escallion remained at 1/- for several months and then reverted to 6d. per bundle; carrots and thyme prices were stable for even longer periods. It appears that the larger margin can be maintained for escallion for some time without resulting in an increase in the price paid to the growers. During the first six months of the year, loads were small and prices were low, but the customary margins for each type of produce were maintained, with very few exceptions.

Supporting data in the operating statements reveal that, whenever a hig-

[a]This is also true in other parts of the island. "If the person who has come to buy is a higgler . . . bargaining is prohibited. If, for example, the commodities in question are chickens and eggs, the seller will set his price in accordance with the prevailing market price. Chickens will sell by the pound and eggs by the dozen, and custom dictates that the higgler shall not earn more than 6d. profit on the pound or dozen. If eggs are retailing at market at 2/-, the higgler will buy them at 1/6. If the higgler can get more than his 6d. profit by selling the eggs at more than 2/-, then it is his good fortune" (3).

[b]Although the price per bundle may remain constant, fluctuations in value of these goods may be reflected in variations in the size of the bundles.

gler makes an unusually high profit on a load, it is due to the fact that, while most of the load yields the customary gross profit, one or more commodities bring unusually high prices. For example, on February 8, 1958, Miss A made a net profit of £3. 4. 0, over 50 per cent, on a load for which she paid £6. 10. 6. The prices were:

	Paid	*Received*	*Gross Profit*
Carrots	1/- per bundle	1/9 per bundle	9d. per bundle
Escallion	2/- " "	2/9 " "	9d. " "
Thyme	1/- " "	1/6 " "	6d. " "
Beets	1/- " "	2/- " "	1/- " "
Salad	9d. " "	1/3 " "	6d. " "

Though the gross profit per unit for escallion was near the average for the year and that for thyme at the customary level, that yielded by the other load components was unusually high. The gross profit for carrots was 3d. above the usual figure, beets 6d. above and salad tomatoes, 4d. Other higglers did not show correspondingly high profits because none of them took salad tomatoes to the market and only Miss D was able to sell beets for 2/- per bundle, as did Miss A. Miss E sold beets for 1/9 per bundle, and all of them except Miss A sold carrots for the usual 1/6 per bundle.

7. The fact that the gross profit accrues to the higgler on each unit of goods is extremely significant, for it gives the higgler an incentive to maximize her load. The price graphs for all five higglers shows that the gross profit margins for each unit of each commodity held remarkably constant throughout the year. Under these conditions, the higgler is encouraged to take as large a load as possible commensurate with her ability to dispose of it, because, for all goods beyond the minimum required to defray expenses, gross profit becomes net profit.

8. Therefore, the larger the load, the greater the net profit. This is borne out by the fact that the profit curve for each of the five women almost parallels the curve for the cost of the load. Further evidence is contained in Table 2, which sets forth the average of the higgler's weekly operating statements for the year. In each case, the greater the average value of the load, the higher the average net profit.

Whenever there is an extremely valuable load without a proportionately high profit, which occurred in some weeks during the end of the year for all five higglers, the explanation lies in the composition of the load. Nearly all of the peak loads included one or two bushels of red peas in addition to the usual root vegetables. Red peas yield a customary gross profit that is only 20 per cent of the unit price when the price is at its lowest, while the customary margin for carrots is 50 per cent of the unit cost to the higgler. Therefore, two loads costing identical amounts would yield different gross profits if one were made up entirely of red peas and the other of carrots. The latter yield would be almost three times greater than the former. Thus, the net profit gained from loads made up largely of red peas is a much smaller proportion of the cost of the load than is the case when vegetables make up the entire load.

TABLE 2. AVERAGE OF HIGGLERS' WEEKLY BUSINESS OPERATING STATEMENTS FOR ONE YEAR BEGINNING FEBRUARY 2, 1957.

Name of Higgler	Miss A	Miss B	Miss C	Miss D	Miss E	Miss F
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Average total sales per week	6 18 11	6 0 0	8 16 11	4 10 6	8 1 10	10 6 1
Average cost of sales per week	4 15 7	4 6 4	6 6 6	3 0 7	5 17 10	8 1 6
Average gross profit per week	2 3 4	1 14 5	2 10 5	1 9 11	2 4 0	2 4 7
Average total expenses per week	11 8	12 0	13 6	11 0	13 3	1 0
Average net profit per week	1 11 8	1 2 5	1 16 9	18 11	1 10 9	2 3 7

Judging from the data, it appears that the above general facts of higglering apply to higglers who sell in other nearby markets as well as those who sell in Coronation. Though Miss E sells at Cross Roads and Miss C occasionally takes her load to the Morant Bay market in St. Thomas, there are no significant differences between their operating statements and those of the three who sell at Coronation. Gross profit margins and selling prices are almost identical with those obtained at Coronation for the corresponding weeks. On the one occasion, February 22nd, 1958, when Miss E sold escallion for 2/- per bundle at Cross Roads, receiving no gross profit, while the others obtained the customary margin at Coronation by selling escallion for 2/6 or 2/9 per bundle, the difference was not due to a lower market price at Cross Roads. Miss E's escallion that week was of such poor quality that she was forced to sell below the market price. On both the preceding and succeeding weeks, she obtained the usual gross profit for escallion, as did those who sold at Coronation.

This indicates that wholesale prices are nearly uniform for markets near the area of production, even though retail prices are generally higher in other markets than at Coronation.[a] Higher retail prices in other markets do not signify that town higglers there obtain higher gross profit margins than Coronation town higglers, but reflect the fact that their costs, generally speaking, are higher. Much of the fresh produce sold in other Corporate Area markets is purchased at Coronation by the town higglers who sell in those markets. Consequently, they incur additional handcart and market fees in transporting the goods to their stalls in other markets.

Analysis of the operating statements shows a discrepancy between the actual freight charges for red peas and the opinions held about them by higglers, farmers and truck drivers. All three types of informants report that the freight charge for red peas is much higher than would be justified on the basis of their bulk because they are a very high-priced commodity. Truckers and higglers report that higglers try to conceal red peas from the driver by hiding them among the vegetables or carrying them in a hand basket. The data show that red peas are not as profitable to the higgler as are vegetables and the statements show that freight charges do not increase markedly when the higgler is carrying red peas.

A possible explanation might be that the driver does charge a high fee when the red peas are taken to market by the grower, because she will realize a large sum of money from the sale, but that his charges are more reasonable when a higgler takes them, because the driver knows that her profit margin is not large. Unfortunately, this evidence that truck drivers are sympathetic to higglers cannot be verified, because no information is available on the expenses incurred by country people taking red peas to market.

An additional general fact shown by the operating statements is that each of the higglers specializes in a few crops which are her principal load com-

[a]Coronation retail prices are generally recognized to be the lowest in the city.

ponents throughout the year. Other related items are added to the basic components as they are available, but there is no evidence that country higglers make a practice of searching for different types of load components as a means of diversifying the load and thereby minimizing the risk of a loss in the case of a glut of one item in the market. It would seem to be a valid inference that the basic components, in the cases of the five higglers, are not a matter of choice, since they are the same for all five – carrots, escallion and thyme – and these three vegetables are the only crops grown in the region that are ready for market almost every week of the year. However, an incident involving the marketing of flowers occurred during the field stay which demonstrated that higglers with long experience in certain types of goods and well-established contacts with farmers and buyers, do not readily add a different kind of load component, even when it is available and has been demonstrated to be profitable. In other words, they do not seek to diversify their loads by adding unrelated commodities that would entail developing a different group of suppliers and buyers, and also require them to learn to interpret market conditions for another line.

The process by which the cultivation and marketing of flowers were adopted by Riverside residents demonstrates their reluctance to incorporate new lines. In 1940, farmers in a community 6 miles from Riverside began to grow flowers which were taken to Kingston markets by higglers of that community and sold at prices that yielded high returns to both growers and higglers. The higglers had previously traded in vegetables, but gradually changed to flowers as the farmers began to grow more flowers and fewer vegetables. They established trading relations with town flower higglers and retail customers and sold in the markets, in a street flower market in the main business district, and to florists.

Though they knew flowers to be a profitable crop, many Riverside farmers were reluctant to cultivate them for several reasons. They require more capital investment than vegetables, are more likely to be damaged by adverse weather conditions, and, probably most important, if the demand for flowers should suddenly fall off, the grower cannot utilize them by feeding them to his family or domestic animals, as he can do with vegetables. However, by 1947 a few Riverside farmers had begun to grow flowers which they sold to the distant flower higglers, since those higglers were anxious to take more flowers to market and no Riverside higglers displayed interest.

More and more Riverside farmers began to grow flowers as it became evident, from the success of the earlier plantings, that the climate and soil were well suited to them. Also, those who had first cultivated flowers enlarged their plots. As flower production increased, the outside higglers continued to monopolize the marketing. Each Wednesday, they walked to Riverside with their double flower baskets and carried away the crop for the week. It was common knowledge that the flower higglers earned higher profits than vegetable higglers and always had sufficient cash to buy quantities of flowers, but established Riverside higglers refused to take flowers

to market even when requested to do so by growers. Also, everyone knew that the risk of taking flowers to market was less than other goods that would yield a comparable profit, because the customary freight charge for flowers was only 2/- per basket and there was almost no danger of damage to the load, since flower baskets were always placed on top of all other freight.

In late 1956, one young, inexperienced Riverside higgler began to buy flowers, but she had difficulty obtaining them because the farmers did not wish to antagonize the regular flower higglers who could be depended on to take all of their flowers throughout most of the year. However, she made the rounds of the growers every week, bought whatever flowers they were willing to sell to her and, to keep her expenses low, walked the 25 miles to Coronation with the flowers in a basket on her head. By May, 1957, she had been able to increase the size of her weekly load somewhat, but she was still walking to the market.

In June of 1957, Miss B began to take flowers to Coronation along with her usual vegetable load, only because her husband had begun to grow them. After she had established trading relations with town flower higglers, she began to buy from other Riverside growers. Since that time, when flowers are available, her entire load may be made up of flowers. Subsequently, the other higglers, with the exception of Miss C, took flowers from their own fields to market on rare occasions, but none of them, other than Miss B, had bought flowers to sell by May of 1958.

The other four country higglers continued to specialize in root vegetables, adding other related items as they became available. They took their loads, as made up in the country, to the market and sold them to their customers. They made no effort to diversify their loads beyond the variation that comes easily to hand in the rural district. Under certain weather conditions at some times of the year, a load may be almost entirely thyme or escallion because that crop is the only one that growers have to sell. At such times, the higgler takes that load to the market and sells it, buys her groceries and other household items and returns home.

From these facts revealed by analysis of higglers' operating statements, extensive interviews with higglers and prolonged periods of observing them at work, it is apparent that the first requisite of successful higglering over a period of time is the establishment and maintenance of a large pool of farmers as suppliers and of town higglers or retail customers in the market, because these two factors determine the size of a higgler's weekly load and, consequently, her net profits. When a farmer has become one of her "customers", a higgler does not risk losing him to another higgler by deceiving him, taking advantage of him or indulging in aggressively hostile behaviour toward him. Rather, she is fair and responsible in all of her dealings with him and never neglects an opportunity to cement the relationship by doing any favours that lie within her power. All country higglers shop, scrupulously and carefully, for their suppliers and their suppliers' families.

One very successful higgler, whose home is near the end of the main

road used by all upland farmers on their way to town, always greets them from her yard, invites them in to rest, offers them food and drink and "when bad weather catch dem" lends them dry clothes or puts them up for the night. As a result, three sidemen are required to lift her weekly load onto the truck. The neighbours say of her: "If she can do a favour for the littlest pickney, she will do it."

Each of the five country higglers is as careful to establish and maintain trading relations with higglers in town and retail customers, if she sells at retail, as she is with farmers. She deals with them with sympathy and understanding, seldom hesitating long to accept a little less than the agreed price, if, in her considered judgment, the town higgler will not be able to obtain her usual margin of gross profit. If any of her regular buyers do not come to her place soon after she arrives in the market, she will send to let them know that she is there and keeps the goods that they usually buy until she hears from them, even if others who are not regular buyers clamour to to take them.

She knows that her group of town higglers depend upon her for a part of their goods every weekend and she considers it to be her responsibility to get the load to them. If she is unable to come to the market for any reason, such as illness, she will send someone to buy the load and take it to her regular customers.

This affords an explanation for the story, often heard in Jamaica, which alleges that higglers and country people make the trip to market every week, not out of economic necessity, but because they enjoy it.[a] As the story goes, if one meets a country higgler on her way to the market with a big load while she is still near her home, and offers to buy the whole load and pay more than she can expect to get for it in the market, she will refuse to sell. The reason for the refusal, according to those who tell the story, is that she wants to go to Kingston for some high life, to be able to do things that would not be approved by her rural neighbours. Such incidents have rarely been documented, but if they ever occurred, the reason for the higgler's refusal is obvious. The higgler wanted to preserve her trading relations with town higglers and knew that, if she failed to come to the market, they might well begin to buy from someone else and probably would not readily return to her. If any of those who tell the tale had guaranteed to buy the higgler's entire load every week, the answer might have been different.

Rural women, generally speaking, like to go to Kingston occasionally, to buy clothing or even groceries because they believe that things are somehow better and fresher if they are purchased in town instead of the nearby shop. Also, a much more varied selection is always to be had in Kingston. But they would not carry heavy loads over precipitous trails for two days

[a]In an article condemning the practice of women marketing produce, a columnist for *The Farmers' Weekly*, which is a supplement to *The Gleaner*, referred to the women as "fun-seeking farm wives" who squander money earned by their husbands by buying "ice-cream, snowballs, yeast-punch and fried fish on week-end jaunts." June 1, 1957, p. 2.

each week in all kinds of weather and go to Kingston on a crowded truck and sleep for a night, or even two nights, on a hard bench in the market merely for pleasure.

After a country higgler has established trading relations with a town higgler, there is little bargaining over prices because both know the costs and usual gross profit of the other and the state of the market. Neither tries to enlarge her own gross profit at the expense of the other. However, when the market is slow and the goods which they handle are plentiful, each will be forced to take a little less than her usual margin. At such times, they bargain over the amount to be cut from the country higgler's gross profit. Usually, final settlement is not made until the town higgler has had time to sell some of the goods and make a fairly accurate estimate of the price that she will obtain for the remainder. Each of the higglers is interested in preserving the good will of the other and the final settlement is one to which both can agree. A country or town higgler who insisted on preserving her own margin of gross profit at the expense of the other would be unable to maintain her trading relations over a period of time.

Since a country higgler considers it to be her responsibility to supply her customers, she does not search in the market for the highest price obtainable, but goes immediately to her place, judging the state of the market from information gained on the trip to town and in or near the market, and sells her load to her regular customers. When goods in her line are scarce, she knows that she could sell her load to almost any town higgler, but she makes no effort to do so, but rather, takes the opportunity of cementing her relations with her regular customers. As a result, when the country higgler's goods are plentiful, they feel obligated to take some from her, giving her as much of her usual margin as possible. However, in such cases, both buyer and seller are well aware of the market price and, if the price on which they agree departs at all from the market price, it will be by a very small amount, probably not exceeding 3d per unit. To both buyer and seller, the most important feature of the trading relationship is the fact that through it the town higgler is assured of a supply of goods and the country higgler is certain of a market for her load. This is always a matter of concern, but it becomes vital during periods of scarcity or glut.

Some sellers favour their regular customers in other ways. To give "brawta" or "make-up" is the practice, all along the line from rural producer to retail buyer. This is identical with the British and American practice of giving something additional in a transaction which is called, for example, "giving an extra unit or more to boot" as in the "baker's dozen".

The judicious giving of "brawta" is a mark of the successful higgler. She considers it a good investment in customer relations, saying: "That's why they come back to me," or "I give brawta to encourage them," (to make it profitable for the customer to continue to deal with her.) Some country people and country higglers who sell to town higglers say: "I don't give it, but dem take it." Country higglers who specialize in oranges report that

their customers always take one "to taste" before they buy, and expect at least one extra for every dozen that they buy. One or two extra "fingers" are given with every dozen bananas. However, a higgler only gives "brawta" to her customers if she has received it from her suppliers; she does not give away goods for which she has paid.

The amount given as "brawta" is, in many regions, established by local custom, sometimes through variations in the quantity represented by the same unit of measurement. Thus, a country higgler is able to sell ten dozen oranges for every "hundred" that she buys because the "hundred" that she buys exceeds one hundred units. In some rural areas, oranges and grapefruit are counted by the "trose". Twenty "trose" make one "hundred", but in the country, six units equal one "trose". Furthermore, when a country higgler buys a commodity that is easily injured, such as oranges or grapefruit, she is usually given an additional quantity, which may run to as much as twenty extra units for every "hundred" that she buys, in case "the load mash".

In practice, a hundredweight is not invariably 112 pounds. In the yam trade, one "hundredweight" is 135 pounds. The custom of giving extra weight arose as an allowance for the dirt that clings to yams, and, at first, was quite small. However, dealers began to compete with each other, not in the price per pound, but in giving more over-allowance in weight, until the present figure of 23 pounds became established practice.

At present the same type of goods are sold using different units of measure. Grains, pulses and coffee are sold by the quart, pint, gill and also by the pound. Some ground produce, such as carrots and escallion is sold by the bundle, but the same type of goods is also sold by the pound. Before the second World War, it was customary to sell by the "heap", though the size of the heap could be varied, allowing for manipulation of the price. On completion of a sale, the higgler usually threw a little more on the heap and many of them became adept at making the gesture without adding anything to the heap. Selling by the heap has largely disappeared, but the cry: "Penny-a-heap" can still be heard in Coronation Market, for tray girls customarily sell dry onions in small mounds which they spread out before them on the ground.

Weekend Town Higglers. Operating statements for the year were also obtained from Miss F, a weekend town higgler, who is a customer of two of the five country higglers and sells, both retail and wholesale, on Fridays and Saturdays in Coronation Market. She is 26 years old and has been higglering for six years, having started after coming to Kingston at 18 and working as a domestic servant for one year and then selling cooked food in a bar. She prefers higglering to her previous occupations because she earns more money in less time and is free four days each week to care for her 10-year-old daughter, with whom she lives in a small room in a yard in the slum district of West Kingston. Her daughter sometimes comes to the market on Fridays and Saturdays to run errands or sell for her mother in her absence.

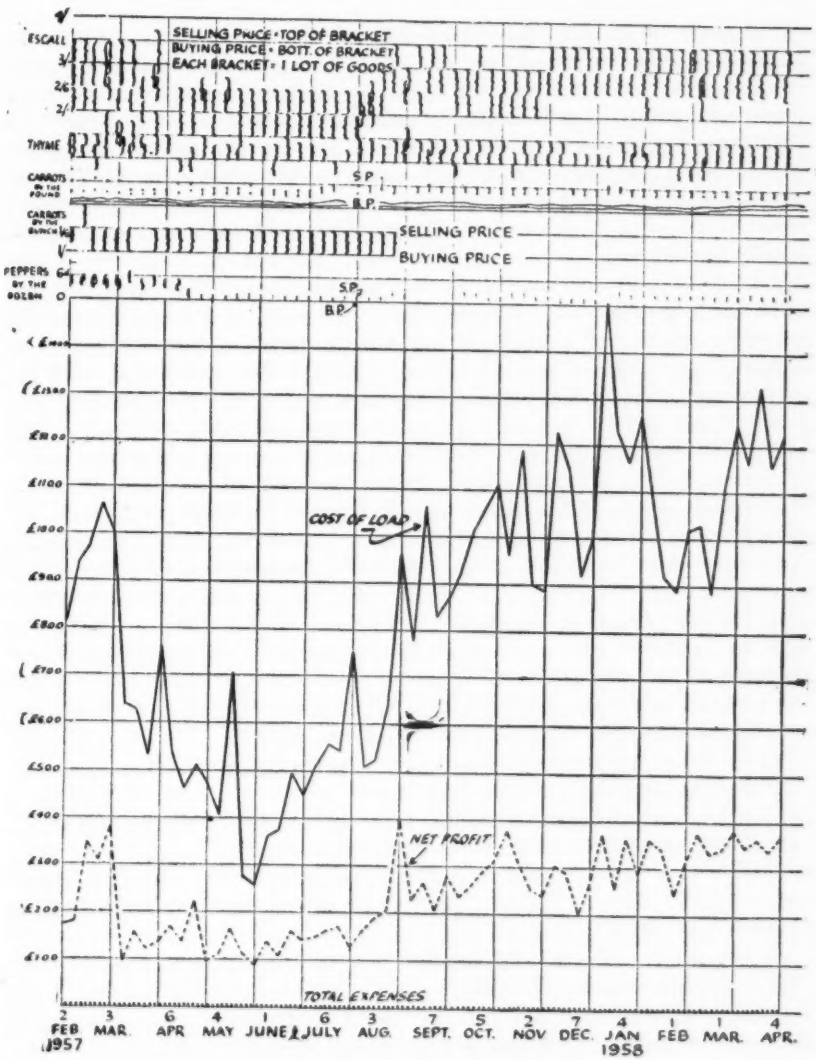

Figure 6 — Business Operations of Miss F

Miss F specializes in country peppers, which she sells both at retail and wholesale when she has sufficient supplies, but she also sells carrots, escallion and thyme. Escallion and carrots are bought by the bundle from Eastern St. Andrew country higglers and by the pound from those who come from South St. Elizabeth. Country peppers are usually purchased by the pound and sold by the dozen.

The goods which she sells at wholesale are sold in the same condition in which they were purchased, but at a price that yields her a particular gross profit. For her retail business, she breaks up the large bundles that she buys from country higglers into smaller bundles that she sells at a price that will yield the particular gross profit per unit for the original bundle. The graph of her buying and selling prices shows that the retail price for any item is determined by adding her customary gross profit to the price that she paid for it. For example, if she buys escallion for 2/- per bundle, she breaks each bundle into five small ones, each of which she sells for 6d.; but, if she also bought other escallion for 3/- per bundle, she divides the latter into seven small bundles, each of which she sells for 6d. In both cases, she receives her customary gross profit per bundle, which is 6d. She follows a similar practice with all goods in which she deals. The carrots that she buys by the pound, she sells by the pound, after adding 2d. per pound to the price. When she buys country peppers by the pound and sells them by the dozen, she translates the price per pound into a price per dozen and adds the amount of her customary gross profit. For example, on April 20, 1957, she bought peppers at 9d. per pound. Each pound contained 12 dozen, so she sold them for 1d. per dozen, earning a gross profit of 3d. per pound.

Weekend town higglering differs from country higglering in several respects other than the fact that the country higgler goes to the farmer to buy while the weekend town higgler buys in the same market where she sells. Some of the basic facts of country higglering must be modified to apply to the weekend town higgler.

1. Weekend town higglers obtain most, if not all, of their goods on credit, while country higglers risk their own capital.

2. Both country and weekend town higglers spend the same amount of time on small loads as on large ones.

3. Whereas minimum operating expenses of the country higgler are very high, those for the weekend town higgler are very low.

4. The country higgler's operating expenses do not vary proportionately to the value of the load, but those of the weekend town higgler do not vary at all.

5. As in the case of the country higgler, current market prices are known to buyer and seller alike.

6. As in the case of the country higgler, both buyer and seller grant that each is entitled to a certain gross profit margin.

7. The customary gross profit accrues to each unit of goods handled, as it does for the country higgler.

8. In both cases, the larger the load, the higher the net profit.

1. The custom of country people and country higglers granting credit to town higglers and weekend town higglers until a few hours before they intend to leave Kingston has been discussed above. As a consequence, a weekend town higgler must have capital only when she is setting up in business and has not yet established a reputation in the market. After trad-

ing relations have been instituted with a sufficient number of country higglers, she needs very little capital, if any.

2. Miss F spends two nights and two days in the market each week regardless of the size of her load, as do most weekend town higglers. However, a few weekend town higglers begin to sell on Thurdays and thus spend three days each week in the market. After a weekend town higgler has become a regular customer of country higglers, she may not be compelled to stay in the market at night to buy during times of normal supply or of "plenty", for she can ask her suppliers to set aside whatever goods she thinks she will need and then call for them in the early morning. However, most weekend town higglers only do this occasionally, because they prefer to be in the market where they can judge the state of supply and demand for their lines before they buy. They also have another advantage over the country higgler, for they need not wait for a truck, but can return to their homes if they finish selling early.

3. Operating expenses for the weekend town higgler are very low. They consist of a 6d. station fee for each day that she sells, but if she should buy any goods outside the market, she would have to pay the market gate fee. She does not have the handicap of a high minimum operating expense. A load of even a very small size is almost certain to yield her some compensation for her time.

4. Miss F's total business expense remained at 1/- per week throughout the year, although her loads varied in value from £3. 11. 3 to £15. 6. 8. Business expenses for weekend town higglers are greater only if they sell more days and, therefore, pay the 6d. daily station fee for each day, or if they buy part of their stock outside the market and thus become liable for the market gate fee when they bring them into the market.

5. Current prices are known to country higglers and town higglers alike. Though the town higgler knows more about the current state of the market than the country higgler who has just arrived, the country higgler is not ignorant about them, and final settlement is not made until she has had adequate time to judge them.

6. The willingness of the country higgler to grant that the town higgler is entitled to a certain gross profit has been discussed above. The one point on which country higglers sometimes express envy of town higglers is that the town higglers can be in the market for as long as they choose and can, therefore, afford to wait until they get their price, while country higglers must sometimes sell for lower prices because they must leave the city.

7 and 8. The fact that the gross profit margin accrues to each unit of goods handled has the same significance for the country higgler and the weekend town higgler, specifically, the larger the load, the greater the profit. The principle is more applicable to the latter than to the former because a larger load does not increase the weekend town higgler's operating expenses. All gross profit, beyond the 1/- station fee for two selling days, is net profit. This accounts for the fact that Miss F's net profit curve parallels

her "cost of load" curve very closely throughout the year. The discrepancy during the late months of the year, when the load was at its greatest and net profits did not increase proportionately, was due to the presence of the same load component, red peas, that caused the same effect in the graphs of the business operations of country higglers.

Town Higglers

Operating statements of the type obtained from country higglers and the weekend town higgler, were not obtainable from stall holders, the regular town higglers, because of the nature of their business and their manner of conducting it.[a] Their business hours are from six in the morning until five in the afternoon six days each week, and from six to ten on Sunday mornings and at least two nights each week. Most retail sales are of small quantities, such as one-half pint or a big gill, and their purchases are comparatively small, such as one or two quarts of beans. No record is kept of purchases, sales or cash balances. During the week, cash realized from sales is paid out for purchases and foodstuffs are taken from stock to feed the higgler's family. She feels that she is doing well if her stock remains near the usual level, while her sales yield enough cash to purchase new stock and to meet her living expenses and her obligations in her savings pool. If she should find herself with a lump sum above her usual cash reserve needed to buy from country people, say from £1 to £5, she usually purchases imported goods, such as red kidney beans, Irish potatoes or dry onions, from a wholesaler. Such purchases are always for cash because wholesale merchants do not ordinarily extend credit to higglers. Town higglers whose volume of business does not permit them to accumulate cash surpluses sufficient to purchase imported commodities in the quantities in which wholesalers sell them, combine their cash to buy a bag of potatoes or onions and divide the contents.

Town higglers obtain most of their stock from country people and country higglers, but prefer to buy from the former because country people sometimes sell at lower prices than country higglers since they have grown the goods themselves. Country people bring goods to them to sell at any time during the week and the higglers pay cash at the time of purchase, if the seller is leaving the city immediately. Those who are staying in town for several days wait for payment until they are ready to leave. Some, who are a town higgler's regular suppliers, accept part payment and wait until the next trip for the remainder. Therefore, in order to conduct her business properly, a town higgler must have a quantity of cash on hand and tend her stall throughout the week, buying and selling as the opportunity arises.

One town higgler agreed to keep a complete record of her daily transactions. Her accounts were checked by taking an inventory of her stock at the beginning of each week and again at the end of the week and comparing the book inventory with the physical inventory. In five different weeks,

[a]The following paragraph refers to the typical town higgler. The few who occupy several stalls stocked with bushels of grains usually have sufficient cash on hand to buy in large quantities.

it was never possible to find one in which the book inventory, obtained by adding the week's purchases to the physical inventory at the beginning of the week and subtracting the week's sales, agreed with the physical inventory at the end of the week. The amount of the difference ranged from £2 to £3. Possible explanations for the discrepancy are: first, she failed to record some of her transactions, or, more likely, she was deliberately understating her volume of business in order to understate her net profits.

Judging from the operating statements that were recorded, it is undoubtedly correct to infer that the same fundamental considerations govern the business activities of the stall holders, the weekend town higglers and the country higglers. These are a primary concern with building trading relations with as many suppliers and customers as possible, because the larger the volume of business the greater the net profit. Expenses for the town higgler are relatively constant, consisting of the 2/- per week fee for each stall, plus the market gate fee for any goods purchased outside and brought into the market for resale. Although data are not in hand to prove the point, it is safe to infer that a relatively fixed gross profit is earned on each item sold.

Town higglers obtain their original capital to stock their stalls in various ways. Some work at another occupation, such as domestic service, to earn money to participate in a mutual savings group until they have the needed amount, and others enter into an economic partnership with a common-law husband.

Until a few years ago, both women and men worked as banana loaders at the Kingston docks and many were common-law mates, the man and woman sharing living expenses. However, banana ships discontinued loading at Kingston, and although men continue to work as stevedores loading and unloading other types of cargo, this type of employment ceased for women. At that time many of the men gave their mates enough money to stock a stall in the market and the business partnership continued on a healthier basis than before. When they were both loading bananas, each could work only when a banana boat was loading, but under the new arrangement, the woman has a more regular source of income, even though her weekly earnings are less than those of the man when he is working. The household is thus assured of food and necessities during the frequent periods of unemployment that are characteristic of work on the docks.

When a town higgler is short of operating capital, she usually borrows from one of the successful town higglers who always have cash on hand. Town higglers who have sold from adjacent stalls for some time often lend each other small amounts, such as £1, without charging interest, but in most cases, interest is charged. One town higgler described the general practice: "I lend money to a few honest higglers in the market. I lend out a person £5 on Monday and that person must give back the £5 and 5/- for the week on Saturday. It mustn't sleep out over the weekend and they can take the £5 next Monday. Some people charge more — 2/- on the pound.

I know a woman; she lets a girl take £4 from Thursday to Saturday and every weekend give her back 5/- and her £4. But sales are slow now, so I just take what I believe they should pay."

Undoubtedly some higglers obtained their original capital and amounts of operating capital, from time to time, from relatives or common-law husbands, but this is not an important source for higglers as a group, because, in most higgler families, the higgler is the principal contributor, if not the only one, to the support of the household.

Prices

Some of the factors entering into the determination of prices have been discussed above in the description of the business operations of higglers, but the determination of prices in the higglering system, as a whole, merits a fuller account.

Retail prices for the same type of goods exhibit variations at a given time in Coronation Market. Customary prices to growers and customary gross profit margins to wholesalers and retailers tend toward uniform supply prices. However, within this framework of comparatively uniform supply prices, the following factors operate to bring about variations in retail prices.

1. Goods of the same type but varying in quality will usually be priced differently.

2. Anywhere along the line from grower to ultimate consumer, a seller may demand and get a price that is somewhat higher than the customary one. Nearly always, unless there is an extreme glut, she will be able to get the higher price if she waits long enough and her goods are of high quality. Thereafter, every higgler who handles part of that load will be forced to ask a higher price than others are asking at that particular point in the chain of transactions, unless she is willing to reduce her gross profit. Town higglers who sell in the market every day can buy such over-priced goods with less risk than a country or weekend town higgler. Stall holders buy on the assumption that, if the item is attractive and sound, a buyer will eventually come who will pay the price. One "King Street" higgler said: "Everybody doesn't sell the same price. Everybody asks her own price according to how she bought it. If your customer come with it a 3d. higher than somebody else, you pay it. You wouldn't stop buying from her and buy from somebody else for a 3d. If it is pretty and nice, somebody will come and buy it from you. You pay her price to keep her selling to you."

3. Conversely, if a higgler is able to make a particularly fortunate purchase at less than the prevailing price, she may sell the goods below the usual retail price, taking only her customary gross profit. One higgler, who did not customarily sell coconut oil, received 32 quarts at a low price from a friend. She began to sell it below the going market price, adding only the customary margin to the low purchase price. Very soon regular coconut oil higglers, who had heard from their customers that she was underselling

them, came to test the quality of her oil. They did not dispute her right to sell at the lower price, but neither did they reduce their own prices to meet hers.

4. Waiting is the usual response of higglers when they see their line being sold cheaper than they are able to sell it. Stall holders demonstrate by their buying and selling practices that they are astute judges of the supply and demand schedules of the goods in which they deal. Because they are aware of the constant factors in the supply prices of produce entering the market and know very well the seasonal variations in quantity and price of each commodity, they can be quite certain that goods being sold below the market price at a given time will soon be exhausted, and then buyers will have to pay the going market price.[a] If the majority of higglers are selling at the lower price, so that nearly all of a commodity in the market is affected, a country higgler or weekend town higgler will usually assume that there is a glut of that item and reduce her gross profit margin, after waiting for a reasonable time. But town higglers almost never reduce prices in the face of lower ones elsewhere, but instead, wait either for a particular buyer or for a turn in the market. However, if the glut endures, they will insist on paying lower prices to their suppliers so that they can meet the changed retail prices.

5. If the market is slow, leaving many country higglers with unsold goods near the truck's departure time, they may take them back to the country to feed their families or livestock or leave them with a town higgler to sell for them, but if it is possible to sell them, even at a loss, they usually do so.[b]

The retail price in any given transaction is further influenced by the fact that all higglers ask different prices from different types of buyers, whom they classify as follows:

1. Buyers of the higgler's socio-economic status.
2. Middle-class buyers or maids buying for middle-class households.
3. Non-Jamaican middle or upper-class housewives and tourists.

Higglers are adept at classifying buyers. They can tell when a woman of their own socio-economic class is buying for a middle-class household and when she is buying for her own use. In the latter case, she will buy in very small quantities, since her own cash is limited and she has no place to store food. Hence, if she buys in quantity, filling a large basket, the higglers know that she is buying for someone else.

The price to one of the higgler's own class, when the customer is buying for her own use, will almost never exceed the higgler's cost plus her usual margin, and she is more likely to reduce the price for a poor woman than for others. As one stall holder put it: "The hungry feed the starving." Furthermore, this type of buyer is always well acquainted with prices and is

[a] If an item is being sold in the market well below its known value, it is certain to be reported to the market police, who investigate on the assumption that the goods have probably been stolen.

[b] In the full year's operating statements, none of the five country higglers reported an instance of selling below cost or leaving goods with town higglers because of inability to dispose of it. However, other higglers reported doing so at an indefinite time in the past.

forced, by her meagre resources, to try to drive the best bargain she can. From a maid who is shopping for a middle-class household, a higgler demands her usual price, but she may give the buyer some small items for her own use.

The price to the middle-class housewife will not only always be high enough to cover costs and the usual margin, but the higgler routinely asks slightly more, 3d. or 6d. on each item, of most buyers in this class. However, a shrewd Jamaican housewife who is an experienced shopper knows that many higglers demand a higher price of her than they are willing to take. Thus, if she is persistent in bargaining, she may get the goods at a price very near the higgler's cost plus her margin.

A regular customer of the higgler would not try so hard to induce her to reduce her price because the two of them would have arrived at an understanding and both would be anxious to continue the relationship. Regular customers receive "brawta" and, usually, the choicest items in the higgler's load. Also, in times of scarcity, rather than sell her entire load quickly to strangers, the higgler favours her regular customers by reserving all of her supply for them.[a]

An extra 6d. or more is almost always asked of non-Jamaican housewives or tourists because higglers assume that they are able to pay more and that most of them are unfamiliar with the usual prices and have little knowledge of or experience in bargaining. For example, a higgler who sold large, sweet navel oranges to another higgler for 3d. each and to a market cleaner for 4d. each, immediately afterward demanded 6d. each from a non-Jamaican for the same type of fruit. However, few Coronation higglers ever have an opportunity to sell to non-Jamaicans, so that their total gross profit is little affected by this type of buyer.

From the above data, it is plain that no formal or informal price-fixing arrangements exist between higglers who sell in competition with each other in Coronation Market. Each town higgler sets her own retail price, taking into consideration her costs, the going market price and her estimate of her ability to sell at least a part of her stock at a price somewhat above the going market price. In the Jamaican system of distribution of fresh produce, most goods move through chains, varying in length, of higglers from the rural grower to the ultimate consumer. Over a long period of time, a certain price at each juncture, which has been established by custom, dominates the expectations of both buyer and seller. During periods of price stability, after the goods are taken from the site of production, the price at which each subsequent exchange takes place consists of two elements, both determined by custom, the cost of each unit of goods to the seller plus a specific gross profit margin per unit. For a number of commodities of different unit values, this gross profit margin per unit is fixed at 6d.

Price changes in the entire chain of transactions are initiated at the retail

[a]Some housewives have well-established trading relationships with particular country higglers in which consideration of each for the other is taken for granted to the extent that, not only do they refrain from bargaining over price, but the housewife may send someone else to the market for the things she wants.

level in response to changes in supply and demand in the market. The change is reflected back to the producer through successive changes in the price at each juncture in the chain. At each level the unit gross profit margin, 6d., is maintained, while the cost of the goods changes by an amount corresponding to the change in the retail price, until finally, the price to the grower is changed by that amount. The new price structure may remain constant for some time until another change is initiated at the retail level. Thus, a competitively determined retail price dominates a structure in which other prices are determined largely by custom. Price competition between buyers or between sellers does not obtain at levels in the chain other than retail.

Only during the transition from one customary price structure to a new one do the traders bargain to determine the amount of the change to be absorbed by each of them. For example, if a country higgler arrives at the market with carrots, for which she has paid the grower 1/-, anticipating that the previous wholesale market price of 1/6 would continue, to find that retail higglers cannot pay 1/6 because the retail price has fallen from 2/- to 1/9, the country higgler and town higgler may agree to share the loss by each reducing her gross profit margin by 1½d. But, the following week, the country higgler will try to buy carrots for 9d. so as to restore her 6d. gross profit margin. More than one week may be required to establish a new price structure because the grower must be convinced that the reduction is relatively permanent and not confined to one week's market.

Within the general pattern of price stability punctuated by orderly change, other factors that were discussed above produce variations in prices. Producers sometimes take their goods to market and sell to town higglers or consumers at a lower price than prevails in the higgler system. Also, country higglers without an established group of suppliers and buyers bring loads at irregular intervals and often sell at a lower price than the regular higglers receive. The price at which some retail transactions are completed departs from that expected when customary costs and profit margins dominate, because of the higglers' discrimination between different types of buyers. Though the above types of exchanges may be made at prices other than the going market price, the range of variation seldom exceeds 6d. per unit. The price in a given transaction ordinarily departs from the market price no more than 3d. in either direction. All sellers and almost all buyers know the customary prices of the goods that they buy and bargaining centres around that figure.

As stated above, retail prices are determined by conditions of supply and demand in Coronation, under conditions that appear to be purely competitive. A market in pure competition must be atomistic, open, free and its trade must be conducted by buyers and sellers who act rationally. Coronation is atomistic because there are numerous buyers and sellers and the operations of each are so small that no one of them can influence the general market price; it is open in that no barriers are erected against additional

sellers; and it is free since prices, with the exception of a few items, are not fixed by authority and no informal price-fixing arrangements exist.

The final criterion of a competitive market, that of rational behaviour of the participants, requires a somewhat fuller discussion. In the Jamaican economy, where markets and monetary exchange obtain, all that rationality requires is that, when presented with alternative choices, a buyer will select that choice which will maximize his utility, roughly speaking, and a seller will select that choice which maximizes his gain or profit, and, in general, this may be thought of as a long-term proposition. From this point of view, the behaviour of both town and country higglers is perfectly rational in the sense that each seeks to maximize her long term gain. Given the conditions and structure of the market, the greatest chance to accomplish this is by cementing long-term buyer-seller relationships.

In a competitive market, according to standard price theory, the supply prices of the different sellers will vary according to the cost of the goods that they bring to the market and their expenses, plus the amount of profit that they expect to make. Demand prices will be determined by the number of buyers in the market and the intensity of the desire of each for the goods in question. The market price will tend toward the point where the curves, representing the demand and supply prices of the various traders, meet. Unit retail prices in Coronation are, in most cases, identical with the costs of the seller plus a customary margin of gross profit which covers the seller's business expenses and yields a small return to her. Effective demand, at that price, is sufficient to clear the market, as a rule. The presumption is that market price, in the long run, does not rest very much, if at all, above the lowest point of minimum cost. Thus, since it satisfies these conditions, Coronation appears to approach a market in pure competition.

As far as could be ascertained, similar conditions prevail at other markets in the Kingston area and in rural government-supervised markets. Therefore, the probability is that the prices that obtain in the higglering system are determined largely by the conditions of supply and demand in the markets.

Relative Efficiency of the Higglering System[a]

The problem of assessing the relative efficiency of the higglering system for the Jamaican economy as a whole involves consideration of several factors. The higglering system does, in fact, perform an essential function by making available to consumers goods that are produced in small quantities on scattered, relatively inaccessible, outlying farms. An evaluation of its efficiency depends upon a judgment as to whether, in doing so, it consumes an undue amount of the resources of labour and capital available in the Jamaican economy. Generally speaking, if labour or capital is devoted to marketing activities when it would yield a higher return if otherwise employed, the community is poorer by the amount of the difference. As Gal-

[a]The following argument and conclusions are similar to those advanced by Mintz (*6*, p. 21-23).

braith has pointed out (*4*, p. 1-2), much of the marketing research in the United States proceeds on the assumption that an excess amount of resources is consumed in marketing activity and concentrates on labour because that factor is scarce as compared to capital. As a consequence of the relative proportions of labour and capital, marketing facilities that require a maximum of capital and a minimum of labour have proved to be most efficient in the United States. But it is an error to apply this specialized definition of efficiency to countries in which the factors are present in different proportions.

Research in the economies of countries with limited technological development has shown that their problems require a different approach because the relative availability of capital and labour is the reverse of the situation that obtains in the United States (*4; 1*, p. 25; *2; 7*). Therefore, facilities that utilize a greater proportion of labour and a lesser proportion of capital are likely to be more efficient for such underdeveloped economies. However, such facilities should be examined to determine whether they consume an undue amount of the factors available in the economy.

The business routine of country higglers may be uniquely adapted to the present conditions of agricultural production and transportation in Jamaica. Most regular country higglers pay for produce when they collect it and later transport it to market. In the process, much of the gross profit is paid out as expense which serves as income to other economic units, such as transport services, markets and handcart men. The remainder of the gross profit which the higgler retains as a return on invested capital and compensation for her time, is seldom large but, more important, each market trip entails the risk of a net loss.[a]

Stall holders in Coronation Market invest more capital in stock for longer periods than the average country higgler and are available in the market at nearly all times to country people who wish to sell and consumers who wish to buy. The net return to a stall holder is proportionate to her volume of business, since expenses are relatively constant. Though the typical stall holder probably earns less than £2 per week, on the average, the most successful ones with large stocks and many years of experience in which they have developed large groups of suppliers and buyers and skill in judging trends in the market, undoubtedly earn more.[b] However, their invested capital is much greater and they must keep large amounts of cash on hand

[a]It has been suggested that some Caribbean communities, including Jamaica, purchase the services of self-employed higglers at a lower cost than would be approved for wage-employed labour. On those occasions when the higgler's gross profit is approximately equal to her business expense, she is working for zero wages; when she loses money, her wages are a negative quantity. The community countenances this condition when it would not tolerate employers utilizing the labour of others at such wages (*8*).

[b]Bauer states that to the extent that luck does not enter into the results, the superior knowledge, skill and effort of some traders give them higher returns than are enjoyed by other traders, and "such skill should be rewarded. In under-developed areas it is one way of encouraging the development of some of the qualities which are necessary if members of the rural population are to become fitted to take an active part in economic advancement." (*1*), p. 226.

to buy in bulk from country people. It is improbable that their greater return is derived from unduly high prices exacted from consumers because Coronation prices are generally acknowledged to be the lowest in the city.

As concerns the weekend town and country higglers who crowd the market on Fridays and Saturdays and concentrate their activities on trade in highly perishable produce, they buy, or preferably obtain on consignment, stock from country people and country higglers and sell at retail. An astute woman who is able to gain the confidence of enough country higglers to obtain a substantial quantity of goods can earn, on the average, £2 per week with the investment of little or no capital and only two days working time, but the great majority of weekend higglers probably earn less than 10/- in an average week. Undoubtedly some additional sellers are required to supplement the stall holders in disposing of the large quantities of perishable produce that is usually brought to Coronation on Thursdays and Fridays, but many more come to the market than are necessary to effect distribution of the goods. However, the fact should not be neglected that they probably perform an important service to the community. It may be that their presence in such numbers is responsible for the fact that prices in Coronation Market are competitively determined, with consequent benefits to the community as a whole.

Higglering requires a minimum of capital investment by the community because no special facilities are provided for higglers. They use public transportation facilities and public markets which, presumably, would be maintained if distribution were effected by other means.

It would seem, then, that under the conditions that obtain in Jamaica, the higglering system is a relatively efficient means of effecting the internal distribution of locally-grown produce. Though more labour is utilized than is required to accomplish the task, this does not constitute faulty allocation of resources, since a resource is misused only if it is consumed in one activity when it would yield a higher real return if otherwise employed. Almost all labour in the higglering system is supplied by women and children who, as productive workers, are redundant in Jamaica. If another marketing system were adopted that eliminated higglers and did not, at the same time, provide alternative employment for the women who were displaced, most of them would swell the numbers of the unemployed. Some might find employment as domestic servants or agricultural labourers and some displaced country higglers might spend more time in their homes or cultivating their fields, but their contribution to national income in such occupations would be less than it is when they are occupied as higglers.

The essential points to be kept in mind in assessing the relative efficiency of the higglering system are: first, the contribution of higglers to the national income is sufficiently important to warrant the existence of the system and, second, their contribution to national income in alternative employment, under existing conditions, would be less than it is under the higglering system.

References

1. BAUER, P. T. (1954) *West African Trade*, Cambridge.
2. BAUER, P. T. (1957) *Economic Analysis and Policy in Under-developed Countries*, p. 117-118. London.
3. COHEN, Y. (1953) *A Study of Interpersonal Relations in a Jamaican Community*, p. 55. Ph.D. thesis, Yale, Unpublished Ms.
4. GALBRAITH, J. K., and HOLTON, R. H. (1955) *Marketing Efficiency in Puerto Rico*, Cambridge, Mass.
5. KATZIN, M. (1959) "The Jamaican Country Higgler", *Social and Economic Studies*, Vol. 8, No. 4. University College of the West Indies, Jamaica.
6. MINTZ, S. W. (1957) "The Role of the Middleman in the Internal Distribution System of a Caribbean Peasant Economy," *Human Organization*, Vol. 15, No. 2, pp. 18-23.
7. NURKSE, R. (1953) *Problems of Capital Formation in Under-developed Countries*, p. 48. Oxford.
8. ROTTENBERG, S. (1953) "Note on Economic Progress and Occupational Distribution," *Review of Economics and Statistics*, Vol. XXV, pp. 167-170.
9. SMITH, M. G. (1956) *A Report on Labour Supply in Rural Jamaica*, p. 14. Jamaica.

Education and Occupational Choice in Rural Jamaica

By

M. G. Smith

Introduction

In this paper I seek to describe the patterns of occupational preference in rural Jamaica. To do so I draw on two independent surveys for my data. One of these enquiries was a study of elementary education, made by Mr. P. C. C. Evans in 1957[a]. The other was a survey of conditions affecting rural labour supply which I made in 1955. Occupational choice was investigated in both studies, and by collating their data on this topic, we can explore the correspondence of career choices amongst peasant adults and children, and relate these aspirations to local prospects. The comparison depends for its value on the validity of this procedure. Various objections are possible, and I shall discuss these before analysing the data.

In his study of rural elementary education in Jamaica, Mr. Evans administered a questionnaire to the children in forty-one schools, twelve of which were in rural townships, while five stood on the margins of sugar areas, and the remainder in the "open country" districts of dispersed peasant settlement. The schools were selected on the basis of current knowledge to represent the peasant populations settled on the margins of sugar plantations or further afield in the hills. The questionnaire was answered by 2,050 boys and 2,850 girls between the ages of 10 and 16.

The questionnaire contained two items of interest here. Question 28 asked, "What work do you want to do when you leave school?" Question 30 asked, "What work do your parents want you to do?" The questions were written on the classroom blackboard and read out to the children one at a time. The children wrote down their answers on sheets of paper which were then collected. The tabulation and analysis of replies to Questions 28 and 30 were carried out under my direction so that I could compare these data with others in my possession.

The survey from which these earlier data were drawn was made in 1955. Its object was to study conditions affecting labour supply in the peasant areas of Jamaica. As part of this enquiry, I asked all individuals who lived in the districts visited whether or not they were then seeking work. Those who said they were, were then asked to name three types of work which they preferred. For the purposes of this labour survey, all individuals above the age of 15 were treated as adults, and, provided they lived within the

[a]I very much appreciate the generosity of Mr. P. C. C. Evans of the Institute of Education, London University, for permission to use these survey findings.

areas under study, they were interviewed. However, for this paper, I shall deal only with the two junior adult age-groups, that between 15 and 24 years of age, and the group between 25 and 39.

The eight districts in which I made censuses as part of this labour survey were selected by the Director of Statistics, Jamaica, so as to represent the peasant areas of Jamaica. They were scattered widely throughout the island, and are directly comparable with the rural areas in which the school survey was undertaken.

I have already reported on the economic conditions and occupational structure of my rural sample in considerable detail *(6)*; but in this paper some background data are necessary, so that readers may appreciate the context and character of the adult work-seekers whose preferences are presented below.

Of the total adult population of 2,593 in these eight survey districts, 360 males and 369 females were between 15 and 24 years old; another 364 men and 378 women were 25 to 39 years of age. Of the men aged 15-24, 66.6 per cent declared themselves to be "looking for work". Of those between 25 and 39, 75 per cent did likewise. In both female age-groups, 45 per cent of the women said they were "looking for work".

Such a high incidence of desire for work might be taken to indicate corresponding degrees of unemployment among the sample. This would not be quite correct. During the week preceding survey, of the young men under 24, 15 per cent did no work at all, 44 per cent did less than 28 hours of work, another 25 per cent worked between 28 and 42 hours, and 16 per cent worked 42 hours or more. Of the men aged 25 to 39 years, 11 per cent did no work that week, another 21 per cent worked less than 28 hours, 33 per cent worked between 28 and 42 hours, and 29 per cent did 42 hours or more. Except that women of these age-groups tend to work somewhat longer hours than men, their distribution by numbers of hours worked that week is not very different. The great majority of the adults who said they were seeking work were therefore persons who already had work of some sort to do; yet even when allowance is made for weather, illness, social activities and other factors which reduce available work-time, it is clear that many of them were underemployed.

The main occupation of these peasants is small-scale farming. Women report house-keeping as work, together with their other activities such as farming, marketing, dress-making, shop-keeping, and the like. Of the total adult male population in these areas, 34 per cent were engaged in own-account farming, 46.1 per cent combined own-account activities with wage-work, and 14.3 per cent were wage-employed solely. A further 5.6 per cent of these males had had no occupation during the twelve months preceding survey. For males, farming predominates among own-account activities. Wage-work is predominantly roadwork, transport, or farm-labour. Some employment is locally available in building and house-repairs, but this is small. The own-account category here includes unpaid family labour, which usually

involves farming for the younger men and home-making for women. Of the adult females in these areas, 63.8 per cent were own-account employed, a further 20.1 per cent combined own-account and wage work, and 6.2 per cent were fully wage-employed. 9.9 per cent reported no occupation over the preceding twelve months. Only 8 per cent of these women worked at farming for wages, whether full or part-time. Another 6.3 per cent engaged in paid domestic service, on part or full-time basis.

Of the males, 78.3 per cent farmed full or part-time on their own account; and of this group, 66 per cent declared themselves to be "looking for work". Of those farmers who also undertook wage-work, 80 per cent were looking for work; among the full-time farmers engaged purely on their own-account, 46 per cent said they were "looking for work". Of the wage-employed farm-workers, 82 per cent said they were seeking work; of those who worked for wages off the farms, 59 per cent said so. The following table shows how the members of these two age-groups were distributed by employment status.

TABLE 1. Adults below 39 years of age, Classified by Sex, Age-group and Employment Status during the Twelve Months Preceding Survey.

Unit = per cent

	Males		Females	
Employment Status	15-24	25-39	15-24	25-39
Own-account employed*	24.8	17.4	52.5	67.0
Wage-employed only	32.7	13.5	10.3	5.5
Wage and own-account	36.7	66.6	21.5	26.4
No occupation	6.5	2.5	15.7	1.1
Totals	100.0	100.0	100.0	100.0

*Includes unpaid family labour.

Full-time wage work has a higher incidence among males than females, and is greatest in each sex among the junior age-group. For men of 25-39 the typical adjustment combines wage and own-account activities, the latter being mainly farming. For women concentration on home-making is similar.

Given these conditions, it is worthwhile asking how many of those who wished work had taken steps to seek it. Here we encounter institutional arrangements which give local employers the main initiative in recruiting those workers they want as need arises. Farmers may keep work available for those persons they prefer. Preferred workers may have work offered them without their seeking it; but the same men may also seek work elsewhere, or, knowing of its local availability, may feel their applications fruitless, since the farmers involved have their own "regular" labour supplies. The same institutional context applies to female labour.

Of those men in either age-group who declared themselves to be wanting work, 15 per cent had received offers of local employment during the previous twelve months, but had not sought work otherwise. Another 30 per cent of the men in the junior age-group and 24 per cent in the senior one had neither sought nor been offered work. Of women between 15 and 24 who said they wanted work nearly one-half had neither been offered nor

sought any during the previous twelve months; of women in the senior age-group, 54 per cent had the same record. Whereas only 37 per cent of both groups of women had actively sought work during the previous twelve months, 54 per cent and 60 per cent of the men between 15 and 24, and 25 and 39 respectively had done so. Expressed desire for work is thus quite consistent with the fact that these people already have something to do. Underemployment, low wage-rates and poor returns from own-account farming together produce a general desire for additional or alternative employment and encourage many actively to seek it. This economic background is directly relevant to the preference patterns discussed below.

By comparing the occupational preferences of these adults with those of the schoolchildren, we may partly determine the correspondence between career wishes and prospects, and the changes of occupational preference which accompany maturation. One objection to this comparison may be that the groups compared were born at different times and do not belong to the same universe as regards careers or life-chances. The force of this argument diminishes when the relevant time-spans are examined. The schoolchildren who answered the questionnaire were born between 1941 and 1946. The junior adult age-group were born between 1931 and 1940. The two groups accordingly contain successive cohorts, and no one could seriously argue that peasant circumstances had changed sufficiently within this interval of 15 years for this comparison of occupational preferences to be misleading. My own experience leads me to believe that the conditions of Jamaican peasant life changed very little during this period. On this view, life-chances and patterns of occupational choice have remained constant and we may assume that these junior adults had much the same career choices when at school as did the schoolchildren studied in 1957. It follows too that the occupational preferences of these school-children will tend to change in much the same way and for much the same reasons as did those of the adults, providing rural conditions remain as they were. The same argument and assumptions underlie comparisons of the two adult age-groups. Members of the senior age-group were born between 1916 and 1931, and in this and the subsequent period, peasant Jamaica underwent little change. Readers who prefer to do so may ignore the senior age-group when the preferences of adults and children are compared. In my view this restriction excludes significant insights, especially because the changing patterns of choice represent one aspect of maturation in the static peasant life-cycle.

By comparing the children's statement of the occupational preferences which their parents have on their behalf with those of the children themselves on the one hand and with those of the adults on the other, we may isolate the influences of home and school on the children's aspirations, and distinguish aspiration from expectation among the adults. Since the senior adult age-group belongs to the same age-range as do the parents of these schoolchildren, the two sets of responses bear directly on the difference between adults' aspirations for their children and expectations for themselves. The important

proviso here is that the parental preferences which these children report are substantially correct. Persons familiar with Jamaica will not be surprised that these children know what sorts of occupation their parents would like them to follow. Adults frequently inform their children of these aspirations on their behalf, and for a variety of reasons. It is thus quite understandable that the majority of the schoolchildren questioned should have clear ideas of the careers their parents wish them to pursue. That these statements relate to parental preferences and not merely to the children's assumptions thereon is suggested by the large proportion of children who report their ignorance of the parent's preference. On these grounds I regard the children's statements of their parents' wishes as a correct record of the parents' views and my use of these data is based on this assessment.

The following analyis accordingly focuses on occupational aspirations, expectations and prospects among rural Jamaicans. These data are drawn from representative rural samples of some size, and I think that their comparative analysis can give a valid account of the patterns of occupational preference among Jamaican peasants, and of the conditions in which they change. Clearly, similar patterns of choice and change should not be assumed for the urban or plantation populations, nor for people of different socio-economic status.

In tabulating these data, I have tried to observe uniformity, while isolating preferences with an incidence of more than 1 per cent. Residual choices are listed as "Other", except where comparability requires their separate entry. Activities of similar type are grouped together, and this classification is kept constant for the four tables reporting on the school survey. In the two tables drawn from my 1955 sample, occupational groupings are slightly different, but their itemization allows easy adjustment.

Tables 2 to 4 report the occupational preferences of males; Tables 5 to 7 deal with females. Table 2 summarizes the schoolboys' answers to the question, "What work do you want to do when you leave school?" Table 3 gives their replies to the question, "What work do your parents want you to do?" Table 4 reports the relative frequency with which different occupations were chosen by the young men whom I interviewed in 1955. Tables 5 to 7 report the preferences of schoolgirls, of their parents, and of the young women in like manner. To simplify the discussion, I shall concentrate mainly on ratios of the totals, but among schoolchildren and adults alike, particular age-groups will be mentioned where necessary.

Analysis

The occupational preferences itemized in Table 2 represent 87 per cent of the schoolboys' responses. 9.4 per cent of the boys gave no answer, and 3.6 per cent gave miscellaneous replies. Beyond the twelfth year, the incidence of blank answers drops sharply, and miscellaneous replies increase. One-eighth of the boys aged 10 to 12 gave no answer.

TABLE 2. *Rural Jamaica 1957:* Elementary School Boys Classified by Age and Occupational Preference[a]

Unit = per cent

Years in Age	10	11	12	13	14	15	Total
(a) *Road Headman* P.W.D.	1.3	0.3	0.5	0.3	0.5	—	0.6
Road Work P.W.D.	0.6	0.3	—	—	—	—	—
	1.9	0.6	0.5	0.3	0.5	—	0.6
(b) *Own-Account Farming,*							
Farming	2.6	2.0	2.2	2.9	3.5	11.3	3.0
Agricultural instrcctor	—	—	—	—	—	—	—
	2.6	2.0	2.2	2.9	3.5	11.3	3.0
(c) *Farm and Field Labour*							
(d) *Unskilled Non-Farm Labour*							
Postman							
(e) *Crafts*							
Tailor	3.2	4.1	4.1	3.9	2.3	3.7	3.7
Carpenter and Cabinet maker	3.9	4.9	5.4	8.6	7.1	6.2	6.5
Mason	—	1.0	2.0	1.3	1.1	—	1.3
Plumber	—	—	—	0.2	—	—	—
Painter	—	—	0.7	0.2	1.2	1.2	0.3
Shoemaker	0.6	0.7	0.7	0.5	0.7	—	0.6
Fisherman	—	—	—	—	—	—	—
Police and Armed Forces	4.5	3.1	1.1	2.3	2.6	3.7	2.4
Other	—	—	2.0	0.7	0.5	1.3	0.9
	12.2	13.8	16.0	17.7	15.5	16.1	15.7
(f) *Distributive Trade*							
Shop assistant	—	0.3	—	0.3	0.3	—	0.2
(g) *Clerical*							
Office work	3.2	4.1	2.5	2.2	2.4	2.5	2.7
Student	0.6	0.7	0.5	0.2	—	—	0.3
	3.8	4.8	3.0	2.4	2.4	2.5	3.0
(h) *Electrical and Mechanical*							
Electrician	0.6	0.3	1.4	1.7	4.0	3.8	1.9
Mechanic	8.4	13.5	18.2	22.0	23.7	22.5	19.2
Mechanical engineer	4.5	5.5	8.8	9.8	17.1	13.7	10.0
	13.5	19.3	28.4	33.5	44.8	40.0	31.1
(j) *Factory*							
(k) *Transport*							
Driver	9.7	8.2	12.1	11.1	6.7	2.5	9.6
(l) *Professional*							
Doctor	20.0	21.1	9.2	9.6	7.7	6.3	11.3
Teacher	12.3	6.2	7.7	6.6	5.2	7.6	7.1
Dentist	0.6	1.0	0.2	0.2	—	1.3	0.3
Barrister, Judge and lawyer	2.6	2.1	0.4	1.0	0.7	—	1.0
Artist	1.3	0.7	0.7	0.7	0.3	0.25	0.7
Civil servant & accountant	1.4	1.4	1.1	1.0	1.0	—	1.1
Aero pilot	—	0.3	0.7	0.5	0.3	—	0.4
Engineer	—	—	—	—	—	—	—
Dispenser	1.9	0.3	0.5	0.2	0.3	1.2	0.5
Parson	2.6	2.4	1.1	1.0	1.1	—	1.3
Sanitary inspector	—	—	—	0.2	—	—	0.1
	42.7	35.5	21.6	21.0	16.6	18.9	23.8
(m) *No Answer*							
Miscellaneous	1.3	2.4	4.3	3.3	4.4	2.5	3.6
No answer	12.3	13.1	11.9	7.5	5.3	6.2	9.4
	13.6	15.5	16.2	10.8	9.7	8.7	13.0
Totals per cent	100	100	100	100	100	100	100
Totals in numbers	155	291	556	594	374	80	2050

a Answers to Question: What work do you want to do when you leave school?

Of the occupations preferred by these boys, mechanical work comes first with 29.2 per cent of the total, medicine follows with 11.3 per cent, then transport driving (9.6 per cent), teaching (7.1 per cent), carpentry (6.5 per cent), tailoring (3.7 per cent), farming (3.0 per cent), office work (2.7 per cent), police and soldiering (2.4 per cent). Road work and distributive trade are chosen by 0.6 per cent and 0.2 per cent respectively. No one selects farm labour or unskilled non-farm labour as something they wish to do.

Of the boys aged 10 years, 13.5 per cent choose mechanical or electrical work. Of those aged 14 and 15 two in every five boys do so. 42.7 per cent of the boys aged 10, and 16.6 per cent of those aged 14, select professional work; and the choices in this broad category represent 23.8 per cent of the schoolboys' total. Few boys select electrical work. Of craft occupations, cabinet-making and carpentry are the most popular, and mason's work is seldom chosen. Only 0.3 per cent of these boys say they wish to be students. At the time when the survey was made, this may well have been the ratio of rural schoolboys who remained in school after their fifteenth year. In sum, there is a strong preference for mechanical and professional work, the former being the favourite of the older boys, the latter the favourite of the younger ones. In so far as professional careers are unlikely for the boys in these rural elementary schools, the years in school do show a healthy move towards realism; but when we remember that these schoolboys belong to a population of peasant proprietors, their marked preference for mechanical work and scant regard for farming is striking.

Law, the Churches, and the Civil Service are selected as careers by 1 per cent, 1.3 per cent, and 1.1 per cent of these schoolboys respectively. Together with the Police and Armed Forces, these occupations represent the principal agencies of social regulation in Jamaica. Their relative unpopularity among these schoolboys may reflect a recognition that in Jamaica such occupations are usually held by people of a different background, the Police excepted.

When asked to name the occupations which their parents wished them to pursue, 30.5 per cent of these boys could give no answer. Another 1.6 per cent reported that their parents wished them to pursue careers of their own choice. I have already shown why I regard the parental preferences reported by the remaining two-thirds of these schoolboys as probably accurate. Notably, few boys affirm that their parents wish them to follow their own preferences, and in no case do they say that their parents wish them to do farm labour, road or factory work, or other unskilled labour. Only 2.2 per cent say that their parents wish them to farm, although the majority of the parents were undoubtedly farmers. As against 31 per cent of the boys who chose electrical and mechanical trades for themselves, only 16 per cent reported that these were their parents' choices for them. Such differences, together with the large proportion of "don't know" responses to this question, strongly suggest that the boys were not projecting their own ideas on to their parents. Although the incidence of preferences for profession among

TABLE 3. *Rural Jamaica 1957:* Elementary School Boys Classified by Age and the Occupational Career Which They Say Their Parents Wish Them to Pursue.

Unit = Per cent

Years in Age	10	11	12	13	14	15	Total
(a) *Road Work*	—	—	—	—	—	—	—
Road headman	—	—	—	—	—	—	—
(b) *Own-Account Farming, Farming and Cultivating*							
Farming	4.5	1.0	3.2	3.1	3.7	1.2	2.2
Agricultural instructor	1.3	0.7	0.4	1.3	1.1	5.0	1.1
	5.8	1.7	3.6	4.4	4.8	6.2	3.3
(c) *Farm and Field Labour*	—	—	—	—	—	—	—
(d) *Unskilled Non-Farm Labour*							
Postman	0.6	—	—	—	—	—	—
(e) *Crafts*							
Tailor	2.7	2.0	4.8	3.2	4.6	5.0	3.9
Carpenter	1.9	3.0	4.0	5.6	4.8	6.3	4.4
Cabinet Maker	—	1.7	1.4	1.0	1.1	—	1.1
Mason	—	1.4	1.6	1.3	1.1	2.5	1.3
Plumber	—	0.3	0.2	0.2	0.5	—	0.2
Painter	—	—	0.2	0.2	0.3	—	0.1
Shoemaker	0.6	0.3	1.1	0.5	1.1	2.5	0.8
Fisherman	—	—	0.2	—	—	—	—
Police and Armed Forces	3.9	1.0	0.7	2.0	2.2	1.2	1.6
Other	0.6	—	0.9	0.5	0.3	2.5	0.5
	9.7	9.7	15.1	14.5	16.0	20.0	13.9
(f) *Distributive Trade*							
Shop assistant	0.6	0.7	0.7	0.3	0.3	—	0.5
(g) *Clerical*							
Office work	4.5	2.4	3.7	2.4	5.9	3.8	3.6
Student	0.6	2.7	1.6	2.0	2.2	2.5	1.9
	5.1	5.1	5.3	4.4	8.1	6.3	5.5
(h) *Electrical and Mechanical*							
Electrician	0.6	—	0.7	1.5	3.0	3.8	1.4
Mechanic	4.5	9.1	13.6	16.7	18.3	10.0	14.9
	5.1	9.1	14.3	18.2	21.3	13.8	16.3
(j) *Factory*							
(k) *Transport*							
Driver	5.2	4.4	5.1	4.9	3.0	1.2	4.4
(l) *Professional*							
Doctor	16.2	15.7	7.9	7.5	4.0	8.8	8.8
Teacher	11.0	7.1	4.5	4.8	3.5	3.8	5.2
Dentist	—	0.3	0.4	0.3	—	1.2	0.3
Barrister, Judge and lawyer	2.5	3.0	0.8	1.0	2.2	3.7	1.6
Artist	—	0.7	0.5	0.5	0.3	1.2	0.5
Accountant	—	0.3	—	—	0.5	1.2	0.2
Civil servant	0.6	1.0	0.5	0.5	0.3	—	0.6
Aero pilot	—	0.3	0.2	—	—	—	—
Engineer	3.3	2.0	4.4	4.9	9.4	5.0	5.0
Dispenser	2.6	—	0.4	0.2	—	1.2	0.4
Parson	1.3	2.4	1.2	1.5	1.1	—	1.4
Sanitary inspector	—	—	0.2	—	—	1.2	—
	37.5	32.8	21.0	21.2	21.3	27.3	24.0
(m) *No Answer*							
What I choose	—	1.7	1.2	2.0	1.6	3.9	1.6
Don't know	13.5	16.3	16.7	16.5	14.5	12.6	15.9
No answer	17.5	18.5	17.0	13.6	9.1	8.7	14.6
	31.0	36.5	34.9	32.1	25.2	25.2	32.1
Totals per cent	100	100	100	100	100	100	100
Totals in numbers	155	296	556	594	374	80	2050

boys and parents corresponds closely, the preference rates for various occupations differ, and so do the rates of preference in year-groups. Only 19 per cent of the 15-year-olds themselves choose professions, whereas more than 27 per cent of them say this is their parents' choice. As reported, parents prefer mechanical work (14.9 per cent), medicine (8.8 per cent), teaching (5.2 per cent), and engineering (5.0 per cent) for their boys in that order.

Despite the broad similarity of pattern in the choices of parents and children, details differ significantly for each year-group and in the aggregate. Apparently these boys are guided by their parents' known preferences, but are not limited by them. Thus only 9.4 per cent of the boys gave no occupational choice of their own, whereas more than 30 per cent did not know their parents' preference. A favoured occupation, such as medicine, mechanical work or transport, always has a higher preference rate among the boys. An unpopular occupation is even more unpopular with the boys than with their parents. Presumably these differences reflect influences from school and elsewhere which are at work amongst the boys, reinforcing the general direction of parental choices while altering its details. Presumably the broad overlap in the preferences of parent and child represents values and sentiments common to both sets of influences. Since teachers in these schools and parents of these children are drawn from the same *milieu* and have been through the same school system *(4)* the sentiments and values which they share are many and important.

Table 4 reports the occupational preference rate among those young men between the ages of 15 and 24, and 25 and 39, who were looking for work when interviewed in 1955. All individuals who declared that they wanted work were asked to name three occupations they would like to pursue. Of the men interviewed, 58.4 per cent named three occupations, 22.1 per cent named two, 11.9 per cent named one, and 7.6 per cent named none at all. The responses of the women interviewed gave a similar distribution.

On the assumption of a peasant life-cycle which is fairly fixed, we may follow the course of change in the career choices of rural school-leavers by comparing the occupational preferences of these two adult age-groups with one another and with those of the children. Since the adults whose replies are tabulated here were looking for work at the time of survey, their job preferences have a special relevance.

Among young men aged between 15 and 24, craft work is easily the most favoured occupational category. 28.9 per cent of all choices fell under this head. Farm labour follows with 15.9 per cent, then mechanical labour with 12.4 per cent. Preference rates for factory work and transport are 9.3 per cent and 9.6 per cent respectively. Road work and unskilled non-farm labour have preference rates of 7.2 per cent each. Own-account farming and distributive trade account for 4.6 per cent and 3.2 per cent of the total preferences. The preference rate for clerical work is only 1.7 per cent, and nobody mentions professions. Thus 30.1 per cent of the young men's choices are for unskilled labour on the farm, the road, or elsewhere. A similar ratio

TABLE 4. OCCUPATIONAL PREFERENCES OF YOUNG MEN LOOKING FOR WORK IN RURAL JAMAICA, 1955

Occupational Category	Specialism	15-24	25-39	15-39 Total
		%	%	%
1. *Road Work*	(a) Road work	5.7	9.0	7.5
	(b) Road headmen	0.9	0.7	0.8
	(c) Other	0.6	0.9	0.8
		7.2	10.6	9.1
2. *Own-Account Farming*	(a) Own-Account farming	4.2	6.8	5.7
	(b) Cattle rearing	0.4	1.1	0.8
	(c) Other	—	0.2	0.1
		4.6	8.1	6.6
3. *Farm and Field Labour*	(a) Farm labour	10.0	8.5	9.2
	(b) Cane farm labour	1.3	1.1	1.2
	(c) Farm headman	1.1	2.9	2.0
	(d) Gardener	1.7	1.3	1.5
	(e) U.S.A. farm labour	0.6	0.7	0.7
	(f) Other	1.2	2.7	2.0
		15.9	17.2	16.6
4. *Unskilled Non-Agricultural Labour*	(a) Building labour	0.4	0.3	0.3
	(b) Yard boy	2.3	1.3	1.7
	(c) Watchman	—	0.2	0.1
	(d) General labour	0.6	0.9	0.8
	(e) Storeman	1.0	3.2	2.2
	(f) Hotel work	0.2	0.2	0.2
	(g) Bauxite labour	1.0	1.1	1.1
	(h) Government labour	1.3	1.5	1.4
	(i) Other	0.4	2.0	1.3
		7.2	10.7	9.1
5. *Crafts*	(a) Sawyer	—	1.1	0.6
	(b) Carpenter	6.9	5.4	5.8
	(c) Cabinet maker	4.5	0.7	2.4
	(d) Mason work	7.7	6.3	6.9
	(e) Shoe making	2.5	0.5	1.5
	(f) Butcher	0.9	0.3	0.6
	(g) Tailoring	2.3	1.1	1.6
	(h) Armed Forces and police	2.1	0.9	1.5
	(i) Fishing	1.1	1.8	1.5
	(j) Other	0.9	3.4	2.2
		28.9	21.5	24.6
6. *Distributive Trade*	(a) Shop assistant	2.1	4.3	3.3
	(b) Other	1.1	1.4	1.3
		3.2	5.7	4.6
7. *Clerical*	(a) Office clerk	0.4	0.5	0.5
	(b) Other	1.3	0.9	1.1
		1.7	1.4	1.6
8. *Electrical and Mechanical*	(a) Motor mechanic	10.4	3.6	6.7
	(b) Tractor driver	0.6	0.9	0.7
	(c) Other	1.4	1.6	1.5
		12.4	6.1	8.9
9. *Factory*	(a) Factory work	8.7	9.6	9.1
	(b) Other	0.6	1.4	1.1
		9.3	11.0	10.2
10. *Transport*	(a) Transportation	1.2	1.3	1.3
	(b) Chauffeur	6.8	4.7	5.7
	(c) Railway	0.2	1.1	0.7
	(d) Other	1.4	0.6	1.0
		9.6	7.7	8.7
Totals per cent		100%	100%	100%
Totals in Numbers		470	556	1026

is for transport, mechanical and factory work combined, and almost as much is for craftwork. Own-account farming is preferred by 4.6 per cent.

It is instructive to compare the preferences of the young men of 15 to 24 with those of the men aged 25 to 39. Among this senior age-group, unskilled labour on the farm, the road, or elsewhere accounts for 38.5 per cent of all preferences. Own-account farming has a rate of 8.1 per cent. Preference rates for factory work and distributive trades increase, while the rates for transport and craft work decline. The preference for mechanical work falls from 12.4 per cent among the junior age-group to 6.1 per cent among their seniors, that for craft work from 28.9 per cent to 21.5 per cent. Neither age-group includes professions or electrical work in its preferences; and the preference rate for clerical work is low but constant in both.

The occupational preferences of these adult males contain few strictly urban choices. Occupations such as hotel-work, factory work, shop assistant, storeman, or chauffeur are pursued within or near their districts. The term chauffeur in this context refers mainly to truck-driving. Except for the category of mechanical work, the great majority of the occupational choices made by these adults relate to activities which form part of rural life.

We have seen that 42.7 per cent of the schoolboys aged 10 wanted to pursue professions. Among those aged 13 to 15, the preference for professions is not quite half as great; even so, nearly one-fifth of the boys in their final year at school still want such work. Among 10-year-olds, 13.5 per cent prefer the urban occupations of electrical or mechanical work. Among the 15-year-olds, 40 per cent do so. However the line is drawn, roughly 60 per cent of the occupational preferences of the schoolboys of each year-group are for urban occupations, the younger ones preferring white-collar activities, while the older ones choose industrial trades. Whatever their age, the boys' aspirations exclude own-account farming, unskilled work on or off the farm, roadwork, factory-work and distributive trade. The activities thus excluded are precisely those which have first preference among the young men of these districts. Moreover, the older the men become, the greater is their preference for these formerly disvalued occupations. The unrealism which characterizes occupational preferences among the schoolboys is matched by the realism shown by the senior men. Among young men below 25 years of age, some unrealistic preferences persist. Thereafter these decline sharply, perhaps under economic pressures of maintaining a family. The realistic appraisal of career opportunities which guides occupational preference among late adolescents in other societies seems to be delayed among the Jamaican peasants until near their twenty-fifth year.

Of these young men below 24 years who had actively sought work during the twelve months preceding my survey, 37.7 per cent had sought farm labour, 8.3 per cent factory work, 4.7 per cent employment in trade, 1.8 per cent domestic service, 12.8 per cent some form of Government work as unskilled labour, and 34.7 per cent a miscellaneous collection of jobs, such as building labour, truck-sideman, mason, carpenter, mechanic's assistant,

and the like. Of these young men, nearly 30 per cent had sought employment in other parts of Jamaica, and another 2 per cent had applied for farm-work in the United States. Of those men between 25 and 39 years who had actively sought work during the preceding twelve months, 32.7 per cent had sought farm labour, 8.2 per cent factory work, 9.9 per cent some employment in trading, 23.0 per cent unskilled labour from Government — mainly on road repairs — and the remaining 26.2 per cent miscellaneous employments. Only 26 per cent of these senior men had sought work elsewhere in Jamaica that year, and 2 per cent had applied for work in the U.S.A. There is in short a reasonable correspondence between the distribution of efforts in search of different types of work made by these men, and their statements about the sort of work they would prefer. Rather higher proportions seek farm work than volunteer it as their choice; economic pressures may account for this divergence. Very much the same ratio of active applications and of preferences go to factory work, trade, and perhaps to road work also. The expressed preferences of male adults to this extent at least correspond with their directed efforts.

As revealed by these figures, the occupational aspirations of the rural schoolboys and the prospects for them as adults could hardly differ more sharply. Where the schoolboys exclude some occupations and emphasize their preference for others, the reverse is true of the men. The preferential drift among schoolboys of increasing age from professional to mechanical work continues in early adulthood as a drift firstly from mechanical work to crafts, and then from crafts to unskilled labour. Throughout the entire age-span under study, own-account farming is seldom chosen; yet the overwhelming majority of these rural folk derive their livelihood from own-account farming, and both the men who seek other occupations and the parents of these school-children are predominantly smallholders. When they leave school these rural boys abandon their professional aspirations. As the young men grow older and their realistic assessment of local opportunities increases, there is a further drop in their preference for mechanical work, transport, and crafts. Own-account farming or unskilled labour — the two least desired types of occupation — are almost the only alternatives before them.

Nowadays, in consequence of a new programme of Government scholarships, increasing industrial activities in rural Jamaica, and the steady emigration to Britain — which began in 1955 — this picture may have changed slightly; but when the relative numbers of peasant population, peasant emigrants, the new industrial jobs and scholarships are compared, it is clear that this basic picture cannot have changed much.

It may be argued that the low incidence of preferences for urban occupations among these rural adults simply reflects the fact that young people with these aspirations have already left the districts and gone to the town. Undoubtedly some will have done so; and many of the men interviewed had themselves sought work in other Jamaican areas, including towns, during the preceding year. However, since 60 per cent of the schoolboys choose

urban occupations, it is clear that few of them do move to the towns, simply because the rate of urban growth in Jamaica is so low. In addition, we still find high rates of preference for mechanical and transport work among junior adults in the rural areas. Clearly, it is probable on other grounds as well as on the data before us that the majority of these urban-oriented boys remain in their home districts on leaving school, and gradually revise their aspirations to fit their prospects.

We may now compare the occupational aspirations of young men looking for work with the schoolboys' reports of their parents' aspirations for them. Whereas 9.1 per cent of our young men want road work, no parent is reported to want this for his son. Whereas 16.6 per cent of the young men want farm or field labour, no parent is reported to want this for his son. Whereas 9.1 per cent of the young men want unskilled non-farm labour, hardly any parents were reported to want this for their sons. Only 13.9 per cent of the reported parental preferences were for careers as craftsmen, while 24.6 per cent of the young men want such work. Whereas 10.2 per cent of the young men want factory work, no parent is reported to want this for his son. In detail as well as in sum, the contrast could hardly be greater.

Tables 5, 6 and 7 describe the girls' position in the same order as has been done for the boys'. Table 5 gives the girls' own preferences. Of these schoolgirls, only 5.4 per cent gave no answer, only 0.3 per cent wished to stay at home. 46.2 per cent chose occupations loosely labelled as clerical, 33.0 per cent choosing to become nurses. Another 22.4 per cent selected professions, 19.5 per cent wishing to become teachers. Dressmaking was chosen by 22 per cent. Essentially the schoolgirls prefer nursing, dressmaking and teaching in that order. Only 1.5 per cent chose domestic work, 1.6 per cent chose crafts, and 0.6 per cent chose trade. None wanted unskilled labour of any sort.

Of these girls, 22.9 per cent said they did not know what occupations their parents wanted them to pursue. 1.6 per cent said that their parents wanted them to pursue their own choice, and 0.5 per cent said their parents wanted them to stay at home. 36.4 per cent said that their parents wished them to be nurses; 16 per cent and 14.8 per cent said their parents wanted them to become dressmakers and teachers respectively. As among the boys, here too the girls' own preference for a popular occupation exceeds that reported for their parents. Likewise, the avoidance of an unpopular occupation by the girls exceeds that reported for their parents. Thus 3.3 per cent of the parents were reported to have chosen road work, as against 1.5 per cent of the girls; 0.1 per cent of the parents were reported to favour own-account farming, but none of the girls. If parental preferences as reported here are somewhat unrealistic, those of the girls on their own account are even more so.

Year-group by year-group we can follow changes and differences in the preferences reported by the girls for themselves and their parents. Of girls aged 10, only 7.8 per cent say their parents wish them to become dress-

TABLE 5. *Rural Jamaica 1957:* Elementary School Girls Classified by Age and Occupational Preferences[a]

Unit = Per cent

Years in Age	10	11	12	13	14	15	Total
(a) *Road Work*	—	—	—	—	—	—	—
(b) *Domestic*	2.8	1.7	1.4	1.5	0.8	2.5	1.5
(c) *Light Unskilled labour*	—	—	—	—	—	—	—
(d) *Manual Labour*	—	—	—	—	—	—	—
(e) *Farm Work*							
Own-Account farm	—	—	—	—	—	—	—
(f) *Distributive Trade*							
Shopkeeping	0.7	0.6	0.2	1.0	0.4	—	0.6
(g) *Clerical*							
Commercial	0.4	0.4	0.3	0.1	0.4	—	0.3
Typist (shorthand)	1.0	1.8	2.8	3.7	5.7	4.9	3.2
Office work	1.4	0.8	1.3	1.0	3.3	3.7	1.5
Postmistress	6.7	5.9	8.7	6.7	6.7	1.2	7.0
Nursing	35.6	32.2	26.7	31.9	40.0	58.0	33.0
Student	1.7	1.8	1.3	1.2	0.4	—	1.2
	46.8	42.9	41.1	44.6	56.5	67.8	46.2
(h) *Crafts*							
Hairdresser	0.4	0.8	2.0	1.9	1.4	—	1.4
Police	0.4	0.2	0.2	—	0.2	—	0.2
	0.8	1.0	2.2	1.9	1.6	—	1.6
(j) *Transport*							
Bus conductress	—	0.2	—	—	—	—	—
(k) *Factory*	—	—	—	—	—	—	—
(l) *Sewing*							
Dressmaker	12.2	19.2	25.0	25.3	22.1	13.6	22.0
(m) *Professional*							
Doctor	5.2	2.3	1.8	1.5	0.6	3.7	2.0
Dispenser	—	0.4	0.4	0.4	0.2	—	0.3
Teacher	25.1	24.9	18.4	17.9	16.0	12.4	19.5
Artist	—	0.2	0.1	0.1	0.2	—	0.1
Law	0.4	0.4	0.2	—	—	—	0.2
Other	0.4	—	0.6	0.2	0.2	—	0.3
	31.1	28.2	21.5	20.1	17.2	16.1	22.4
(n) *Miscellaneous*							
Stay home	0.7	0.2	0.5	0.3	—	—	0.3
No answer	4.5	6.0	7.4	4.7	1.0	—	4.9
Don't know	0.4	—	0.7	0.6	0.4	—	0.5
Totals per cent	100	100	100	100	100	100	100
Totals in numbers	286	510	804	677	492	81	2850

[a] Answers to Question: What work do you want to do when you leave school?

makers, as against 17.4 per cent of those aged 15. Only 21.6 per cent of the 10-year-olds say their parents wish them to be nurses, as against 41.4 per cent of those aged 15. Of the 10-year-olds, 19.1 per cent say their parents wish them to be teachers, but of those aged 15, only 6.6 per cent. On entering school, 12.2 per cent of these girls choose dressmaking as a career, but after two years the ratio doubles, falling again to 13.6 per cent. in the final year. Whereas nursing is the choice of 35.6 per cent of the 10-year-

TABLE 6. *Rural Jamaica 1957:* ELEMENTARY SCHOOL GIRLS CLASSIFIED BY AGE AND THE OCCUPATIONAL CAREER WHICH THEY SAY THEIR PARENTS WISH THEM TO PURSUE[a].

Unit = Per cent

Years in Age	10	11	12	13	14	15	Total
(a) *Road Work*	—	—	—	—	—	—	—
(b) *Domestic*	4.2	3.4	3.1	4.6	2.4	2.7	3.5
(c) *Light Unskilled labour*	—	—	—	—	—	—	—
(d) *Manual Labour*	—	—	—	—	—	—	—
(e) *Farm Work*							
Own-Account farm	—	—	0.1	0.3	0.2	—	0.1
(f) *Distributive Trade*							
Shopkeeping	1.8	0.6	0.2	1.2	0.8	—	0.8
(g) *Clerical*							
Commercial	—	—	0.1	0.1	0.4	—	0.1
Typist (shorthand)	1.8	1.4	2.4	2.7	3.2	5.3	2.4
Office work	0.7	2.2	1.0	1.2	1.2	2.7	1.3
Postmistress	5.0	4.4	6.0	4.3	5.9	2.7	5.5
Nursing	21.6	26.7	19.8	24.6	29.6	41.4	24.5
Student	3.2	1.8	2.7	2.9	2.4	—	2.6
	32.3	36.5	32.0	35.8	42.7	52.1	36.4
(h) *Crafts*							
Hairdresser	0.3	0.4	0.9	1.7	1.0	1.3	1.0
Police	—	—	0.2	0.1	—	—	0.1
	0.3	0.4	1.1	1.8	1.0	1.3	1.1
(j) *Transport*							
Bus conductress	—	—	—	—	—	—	—
(k) *Factory*	—	—	—	—	—	—	—
(l) *Sewing*							
Dressmaker	7.8	11.9	19.5	17.4	18.1	17.4	16.0
(m) *Professional*							
Doctor	4.6	1.4	1.3	1.2	1.0	1.3	1.6
Dispenser	—	0.2	0.4	0.4	0.2	—	0.3
Teacher	19.1	18.4	15.3	12.6	12.5	6.6	14.8
Artist	0.3	—	0.2	—	0.2	—	0.1
Law	—	0.2	0.2	—	—	—	0.1
Other	0.6	0.2	0.3	0.1	—	—	0.2
	24.6	20.4	17.7	14.3	13.9	7.9	17.1
(n) *Miscellaneous*							
Stay home	2.1	0.2	0.4	0.7	—	—	0.5
No answer	15.6	12.3	12.5	10.2	7.7	1.3	11.0
Don't know	10.6	13.5	11.7	12.0	10.8	13.3	11.9
What I choose	0.7	0.8	1.7	1.7	2.4	4.0	1.6
Totals per cent	100	100	100	100	100	100	100
Totals in numbers	286	510	804	677	492	81	2850

a Answers to Question: What work do your parents want you to do?

olds, 58 per cent of the girls aged 15, choose this. The preference rate for teaching is 25.1 per cent among 10-year-old girls, but falls to 12.4 per cent among those about to leave school.

These patterns of choice show that both the girls and their parents prefer occupations which offer some assurance of escape from peasant circumstances. This desire for escape seems to dictate the direction of occupational

choice. Variations in these choices for children of different ages seem to be governed by estimates of their probable achievement, however unreal these may be. Thus the changing preference rates among children of different ages, and the differences observable between preferences of parents and children, simply express differing estimates of the chances of escaping rural poverty by means of particular occupations. Since conditions among the sugar-working proletariat are not notably better than those among smallholders, in Jamaican terms the urban areas and their occupations offered the only acceptable escape from peasant life, until emigration assumed its current proportions. This escape goal provides the basis of the career choices made by and for children; but the definition of occupational careers primarily as the means of escape severely limits the realism of the choices to be made, and of the estimates of probable achievement on which particular choices are made or changed.

As against 1.8 per cent of the 10-year-olds who say their parents would like them to be typists, 5.3 per cent of the girls about to leave school say so. Whereas 4.6 per cent of the 10-year-olds say their parents wish them to be doctors, only 1.5 per cent of those aged 15 say so. The overwhelming vote by parents and daughters in favour of nursing, teaching, and dressmaking simply declares how restricted is the range of occupational choice for rural women, granted this urban orientation. In the sense that they are based on tradition and experience which show that such careers are almost the only means of social mobility open to Jamaican peasant girls, these choices are not wholly unrealistic; but when the volume of mobility which these occupations actually provide is compared with the demand, the situation seems pathetic.

What happens to rural girls when they leave school? Very few of them actually become nurses or teachers. Many start to learn sewing but abandon it after becoming pregnant in later adolescence. In any event, these peasant communities hardly offer many dressmakers profitable employment. We have already seen that 45 per cent of the rural women aged between 15 and 39 were looking for work at the time of my survey; and Table 1 describes their position as regards employment.

Of the job-preferences of young women aged between 15 and 24, domestic work is by far the most important, with a rate of 36.9 per cent. Farm work, mainly farm labour, accounts for 5.8 per cent of these choices, light unskilled labour for another 12.8 per cent. Clerical work of all kinds has a preference rate of 6.1 per cent. Nursing, which is the preferred occupation of one-third of the rural schoolgirls, is chosen by 2 per cent of the young women under 24. Sewing is preferred by 13.2 per cent and teaching by 1.1 per cent.

Job-avoidances are equally significant. Of the preferences reported by the young women of 15 to 24, 5.8 per cent mention farm work, and only 0.3 per cent mention manual labour off the farm. Factory work has a preference rate of 4.4 per cent, crafts, mainly straw-work, of 2.4 per cent.

TABLE 7. OCCUPATIONAL PREFERENCES OF YOUNG WOMEN LOOKING FOR WORK IN RURAL JAMAICA, 1955.

Occupational Category	Specialism	15-24	25-39	15-39 Total
		%	%	%
1. *Road Work*	(a) Road work	0.7	1.4	1.0
	(b) Other	—	—	—
		0.7	1.4	1.0
2. *Domestic*	(a) Domestic	16.9	22.4	19.7
	(b) Cook	3.4	3.4	3.4
	(c) Nursemaid	12.2	9.5	10.8
	(d) Laundress	2.4	4.4	3.4
	(e) Other	2.0	2.4	2.2
		36.9	42.1	39.5
3. *Light Unskilled Labour*	(a) Office maid	4.4	1.4	2.9
	(b) Hospital maid	0.7	—	0.3
	(c) Waitress	3.0	3.7	3.4
	(d) Barmaid	3.7	4.1	3.9
	(e) Other	1.0	1.0	1.0
		12.8	10.2	11.5
4. *Manual Labour*	(a) Manual labour Non-Farm	0.3	1.0	0.7
	(b) Other	—	—	—
		0.3	1.0	0.7
5. *Farm Work*	(a) Own-Account Farm	0.7	1.0	0.8
	(b) Weeding	0.3	0.3	0.3
	(c) Farm labour	4.1	5.8	4.9
	(d) Other	0.7	0.7	0.7
		5.8	7.8	6.7
6. *Distributive Trade*	(a) Shop Assistant	12.2	12.5	12.4
	(b) Fish Selling	1.0	0.3	0.7
	(c) Higgler	3.7	3.0	3.4
	(d) Other	0.2	—	0.1
		17.1	15.8	16.6
7. *Clerical*	(a) Teacher	1.1	—	0.6
	(b) Nursing	2.0	0.7	1.3
	(c) Typist	2.1	—	1.1
	(d) Other	0.9	1.0	0.9
		6.1	1.7	3.9
8. *Crafts*	(a) Straw work	0.7	1.4	1.0
	(b) Other	1.7	1.0	1.3
		2.4	2.4	2.3
9. *Transport*	(a) Transport	0.3	1.0	0.7
	(b) Other	—	—	—
		0.3	1.0	0.7
10. *Factory*	(a) Factory work	4.4	7.8	6.1
	(b) Other	—	—	—
		4.4	7.8	6.1
11. *Sewing*	(a) Sewing	13.2	8.8	11.0
	(b) Other	—	—	—
		13.2	8.8	11.0
Totals per cent		100%	100%	100%
Totals in numbers		296	295	591

Distributive trade enlists 17.1 per cent of the preferences, and 12.8 per cent goes to light unskilled labour in bars, offices, restaurants or hospitals. Road work rates less than 1 per cent.

The occupational preference scale current among young women of 15 to 24 changes little among the senior age-group. The proportions of women in these age-groups who are looking for work in rural areas also remains constant. There is some increase in the desire for domestic work, which represents 42.1 per cent of the choices made by women aged 25 to 39. Farm and road work, manual and factory work also show slight increases, and preference rates fall slightly for light unskilled labour, distributive trade, and sewing, but steeply for clerical work. Since individual aptitudes and economic circumstances are largely fixed by the time these women enter their twenty-fifth year, changes in the occupational preferences of the senior age-group reflect increasing realism in the estimates of probable fulfilment. In this respect the rise in the preference rate for domestic work, from 1.5 per cent among schoolgirls to 36.9 per cent in the junior and 42.1 per cent in the senior adult age-group, is especially significant, the more so when compared with the rate of 3.5 per cent which schoolgirls gave as their parents' choice of this occupation for them. Most of the young women who say they want such work already have children. They do not select domestic work because they specially like it, but because it is perhaps the most generally available employment, and, given their lack of skills, in their circumstances, offers the likeliest means of escape from the rural environment. When women give this occupation as their choice, they set their sights on the towns.

This in itself indicates that many of the urban-oriented schoolgirls remain in these rural areas after leaving school. Some certainly go to the townships, and of these many may settle there; but as indicated above, those who move to town are at most a fraction of the number whose occupational choices show that they want to do so.

To compare the job-preferences which adult women give for themselves with those which girls report their parents to have on their behalf is to contrast expectations with aspirations. Our tables show a fair correspondence between the girls' own occupational choices and those which they report their parents hold for them. The contrast between the occupational preferences of adult women and those of the schoolgirls is thus largely the same as that between adult preferences for themselves and for their daughters. This contrast can only be accounted for on the hypothesis that the frustration which these adults experience in their own lives makes them want their children to pursue occupations which offer escape from a similar lot. Thus the cycle of childhood aspiration and adult despair perpetuates itself; and hence also the peasants' esteem for those persons whose children have "moved out" (7), initially by occupational means, nowadays by emigration also. The snag in this system of occupational preference is that, although the preferred occupations may guarantee the escape and mobility which

determine their choice, there may be very little chance of access to them.

The gap between the schoolgirls' occupational aspirations and the prospects presented by their environment is just as great as that observed among the boys. Both girls and boys exclude all forms of unskilled labour, own-account farming, factory work and distributive trade from their occupational horizons; and say that their parents do likewise on their behalf. But as these young people leave school, they are compelled to abandon their ambitions to become teachers, nurses, dressmakers, doctors, mechanics or engineers. Instead they have to look for the very forms of work which they previously rejected. It follows that until economic pressures override distaste, these young people can hardly show much interest in work which they dislike and still seek to escape.

To clarify this contrast between aspirations and prospects, I shall summarize the statements of adults interviewed regarding the number of hours per week they were willing to work and the minimum weekly wages they would accept. These statements indirectly describe peasant conditions.

Of the young men aged between 15 and 39 who were looking for work in the areas I studied, 11.8 per cent were unwilling to work more than 38 hours per week; 16.5 per cent were willing to work 54 hours a week or more; and 70 per cent had in mind a working week of 38 to 54 hours. Of these men, 22.7 per cent were willing to work for less than 35/- ($5.00, U.S.) per week, and another 18 per cent wanted between 35/- and 40/- per week. 31.6 per cent wanted between 41/- and 60/- per week. Thus 70 per cent of these men would accept wages of less than £3 or $8.40 (U.S.) per week. Such levels of demand may seem depressingly low, yet many employers in these rural areas would consider requests for 40/- a week outrageous, and would scoff at a work week of less than 50 hours.

Of the young women between 15 and 39 who were looking for work, only 9.2 per cent rejected a work week which exceeded 38 hours, while 31.2 per cent were willing to work 63 hours a week or more, presumably as full-time domestics. Of these women, 12.1 per cent were willing to work for 10/- ($1.40, U.S.) per week, and another 34.7 per cent for wages between 11/- and 20/- per week. 20.8 per cent wanted from 20/- to 30/- per week. Thus two-thirds of the women would accept wages of less than 30/- or $4.20 (U.S.) per week. The aspirations of parents for their children and those of the children themselves should be interpreted against the background of adult accommodations revealed by these data.

Discussion

The facts presented reveal a formidable gap between reality and desire. Apparently the conditions of rural life are so depressing that peasants greatly desire that their children should escape them, and hope that this will be achieved by occupational means. The parents' ambitions on behalf of their children are reinforced in some ways and modified in others by the children's years at school. The most unrealistic aspirations are thus partly

corrected, but the basis on which occupations are chosen remains untouched. The elementary schools can merely modify details but cannot challenge this occupational preference scale or its basis, because both are cast in the image of the school.

The school presents peasants with the idea and prospect of alternative occupations. Traditionally it has been the principal avenue of social mobility open to them in Jamaica, and in some periods perhaps the sole important one. In addition the school presents a curriculum based on others designed for urban populations in industrial countries. This disvalues the peasant way of life, inexplicitly but profoundly. In the content of the education it offers, the school directs the children's attention away from their peasant community to the pre-industrial towns with their wide range of prestigious occupations and seemingly endless opportunities.

We have seen that the young folk who leave school in these districts seem to need several years in which to readjust realistically to their environment. In one sphere at least they never do adjust fully, since they heap their own frustrated ambitions on their children, to bring further frustration. The school, by virtue of its curriculum and its role as the primary instrument and channel of a social mobility which is occupational in means, may modify the particulars of this ambition, but can neither challenge nor alter its direction. The occupational values which parents and children hold in common are those which the school represents.

Before proceeding, I wish to consider certain objections that may be raised to this interpretation. Firstly, it can be argued that children in any country have high aspirations and prefer unusual occupations. This is not quite correct, as my own enquiries into the occupational preferences of Hausa schoolchildren in Northern Nigeria indicate. Moreover, in no case do these schoolboys wish to be cowboys, engine-drivers, sailors, or airmen; nor do the girls wish to become air-hostesses, models, or to go on the stage. There is nothing unusual about nursing, dressmaking, teaching or mechanic's work. Even so, the important point is surely that when an English or American boy wants to be a mechanic or a doctor, or when an Australian or German girl wants to nurse or teach, they usually have good opportunities for doing so, simply because they participate in an educational system which provides these opportunities, and belong to an industrial society which values such skills.

It may be argued that the children do not fully understand the occupations which they select, and that in any case their preferences change as a normal part of the process of growing up. These arguments should be discussed separately. If the schoolchildren of 14 or 15 do not understand the nature of medicine or machinery, dressmaking, nursing, or teaching, the schools must accept responsibility. However, as we have seen, there is a fair correspondence between the children's own choices and those which they report their parents to have on their behalf. Even if the child does not know what he chooses, the parent should; and the correspondence of

parental and children's choices is only matched by the divergence in the choices of adults for themselves and for their children.

It is quite true that children often change their occupational preferences as part of the process of growing up; and we have seen examples of this at various places above. But the shifts which take place in the preferences of these children are shifts within a limited framework of implicitly urban character. When professional aspirations are too clearly unrealistic to be retained, nursing or mechanic's work takes over. Only after the child has left school is there a shift towards available rural occupations. To say that the changing career preferences which accompany maturation normally involve careers which are not available would be to stretch this objection too far; but unless it is stretched that far, it does not apply in this case, since it is precisely this choice of the unavailable which is so striking in our sample.

Yet another argument might be that a certain volume of occupational frustration is inevitable and indeed desirable in societies which value mobility and change. Without disputing this general proposition, it is clear that the volume of frustration we have been measuring here is both excessive and self-perpetuating. To compare these conditions with occupational frustration among the Hausa, British or Americans is absurd.

Our data show that rural schoolchildren nourish bright aspirations in school and face a grim period of disappointment when they leave. The educational system which permits or encourages these aspirations cannot avoid some responsibility for the disorientation and disillusion which is their result. Dr. Madeline Kerr, in her study of Jamaican country folk, has attributed some of the cultural confusion which she observed among rural people to their experience of elementary education *(2)*. The gap between occupational choice and prospects discussed in this paper represents one aspect of the confusion Dr. Kerr described.

Our data have implications for the programme of social and economic development which Jamaica is now pursuing. In so far as a programme of agricultural development depends on peasant support for success or seeks to improve their economic conditions, it is useful to know what their occupational orientations may be. Programmes which for their success presuppose the farmers' interest also presuppose that the farmer wishes to remain a farmer, and typically wishes his children to do likewise. Our data have shown an impressive preference for urban-type occupations among rural folk, together with an underlying desire to escape from the peasant environment. It seems self-contradictory to foster an educational system which permits or encourages such pronounced urban orientations among rural folk at the same time that one subsidizes farm programmes which presuppose that the peasants' heart is in his land.

Since the preceding data were collected, the Government of Jamaica has initiated a programme of scholarships to secondary schools, which is designed to raise the secondary school population from 10,000 in 1957 to 26,000 ten years later. By 1967, the population of Jamaica may be about 1.8 million,

and the school-age population about 500,000. Thus even when this scholarship programme is fulfilled, only one child in every twenty may expect a secondary education. Despite its generous intention, this scheme will do little to alleviate occupational frustration among rural Jamaicans.

Finally, it has been argued that the integration of a society is not affected by the fact that many people within it have high levels of aspiration but low expectations *(1)*. Without careful documentation and qualification this proposition is unacceptable. Its chief novelty is to assume social integration under such conditions whatever their measure, cause or form.

Our data reveal a considerable difference between occupational choices among rural adults and children. Since this difference is matched by others between the choices of adults for themselves and for their children, we are clearly dealing with divergent aspirations and expectations. The children's preferences and those of their parents for them express aspirations. Those of adults for themselves express expectations, in the sense that they represent accommodations to local realities. The gap between these scales is the difference between aspirations and expectations. It provides a useful measure of the inconsistency of the social system which promotes them in its adaptive phases.

Recent studies in America have shown that "anomia results when individuals lack access to means for the achievement of life goals" *(3)*. Anomie, the "polar opposite" of full social integration, *(5)* is that condition of the social system in which the individual disorganization called anomia is widespread. The data just presented indicates a sufficiently high incidence of anomia among Jamaican peasants for anomie to be more probable than social integration.

There is little symbolism about the occupational preferences parents hold for their children. In rural Jamaica these choices express the parents' frustration and desire for their children's success by means of escape from the peasant environment. To the parents, occupational advancement alone offers social mobility. The measure of the adults' disappointment with their own lives is their aspiration on behalf of their children. The low level of expectation and high level of aspiration are two sides of the same coin, in this case bound together by the frustration which ensure their perpetuation from parent to child.

The element of motivation is missing from the argument put by the integrationists. Where aspiration and expectation correspond, motivation and performance may do likewise, and the integration of the system concerned consists in the mutually reinforcing relations of these four variables. Where aspiration and expectation differ sharply, so do motivation and performance as a rule, and the lack of coherence among these variables expresses the internal inconsistency of the system of which all are part. Social systems which foster and then frustrate the chosen life-goals of their members are correspondingly incoherent and ill-integrated. When the volume of this frustration reaches the levels with which we have been dealing, it is pertinent

to ask in what sense is the society integrated at all. This question suggests that we may have isolated an index of social integration by comparing occupational aspirations and prospects. Such an index would have obvious comparative values, and could also be used to measure certain aspects of structural change which accompany programmes of economic development.

References

1. BRAITHWAITE, Lloyd (1960) "Social Stratification and Cultural Pluralism", in "Social and Cultural Pluralism in the Caribbean", *Annals of the New York Academy of Sciences*, Vol. 83, Art. 5, p. 829.
2. KERR, Madeline (1952) *Personality and Conflict in Jamaica*. Liverpool University Press, England.
3. MEIER, Dorothy L. and BELL, Wendell (1959) "Anomia and Differential Access to the Achievement of Life Goals." *American Sociological Review*, Vol. 24, No. 2, p. 190.
4. MOSER, C. A. (1956) *The Measurement of Levels of Living*, with Special Reference to Jamaica, H.M.S.O., London.
5. PARSONS, Talcott (1952) *The Social System*. Tavistock Publications, Ltd.
6. SMITH, M. G. (1956) *Labour Supply in Rural Jamaica*. Government Printer, Kingston, Jamaica.
7. SMITH, M. G. and KRUIJER, G. J. (1957) *A Sociological Manual for Extension Workers in the Caribbean*. Extra-Mural Department, University College of the West Indies, Jamaica, p. 42.

West Indian Household Budgets

By

G. E. Cumper

Although household budget surveys have been carried out in many countries it appears that outside Europe and North America the material collected has seldom been given any but the simplest analysis. In particular, there seem to be no easily accessible reports of investigations into the relation between income and the distribution of expenditure in non-industrial countries. It may be of interest to present some data bearing on this relationship in the British Caribbean territories of Barbados and British Guiana.[a]

For British Guiana the basic data used are the results of a sample survey carried out in 1958, and in particular the tabulation of household expenditure by classes and income-groups given in Tables 28 and 34 - 36 of the survey report *(2)*. Reference may be made to this report for the details of the sampling scheme employed and of the administration of the survey. The Barbadian data derive from a survey carried out by Straw in 1951-2 *(4)*. The original schedules were re-edited and the expenditures re-classified to conform to the classification scheme used in British Guiana.

Both these surveys were undertaken principally to provide the basis for a consumer price index and this has imposed certain limitations on their further analysis. Both used relatively small samples (1,500 households in British Guiana, 800 in Barbados) and both represent working-class rather than middle-class households. In British Guiana non-manual workers earning more than W.I. $2,400 a year were excluded; in Barbados no cut-off point was fixed but business and professional men appear to be under-represented in the population covered. In Barbados the special problem posed by the marked seasonal variation in employment was met by visiting each household twice; the household expenditure used in this analysis for the classification of households by income groups is the mean of that recorded for each household at the two visits.

For the purpose of the present analysis the elasticity of expenditure has been calculated as the regression of the logarithm of mean *per capita* expenditure on a given item on the logarithm of mean *per capita* total expenditure over eleven income classes (British Guiana) and over six income classes at two seasons (Barbados). For the major expenditure classes the fit of the linear regression is good; for the 33 regression equations on which Table 1 is based, the value of the correlation coefficient exceeds .9 in nine cases and lies between .8 and .9 in four cases, and falls below .7 in only six cases. The

[a]I am grateful for the extremely helpful comments on this paper made by Mr. W. F. Maunder.

quality of the data did not justify any attempt to fit a curvilinear regression line.

The standard error of the regression coefficient, *sb*, has been calculated from the formula

$$s_b^2 = \frac{Sy^2 - b^2.Sx^2}{(n-2).Sx^2}$$

where x, y are deviations from the population mean of the logarithms of total expenditure (or income) and of expenditure on specified items. The quantity b/s_b is therefore distributed as Student's t, with $n-2$ degrees of freedom (for British Guiana $n = 11$, for Barbados $n = 12$). The approximate 5 per cent confidence limits are $\pm$ 2.3 s_b.

TABLE 1. MEAN EXPENDITURE AND ELASTICITY WITH RESPECT TO TOTAL EXPENDITURE, PER CAPITA BY EXPENDITURE CLASSES FOR HOUSEHOLDS: BRITISH GUIANA, 1956 AND BARBADOS, 1951-2.

	British Guiana 1956			Barbados 1951-2		
	Mean Expenditure[a] BWI $	*b* (Estimated Elasticity)	S_b	Mean Expenditure[a] BWI $	*b* (Estimated Elasticity)	S_b
Food	2.53	0.662	0.059	2.45	0.847	0.060
Alcohol and tobacco	0.34	1.158	0.217	0.14 alcohol	1.779	0.431
				tobacco	1.218	0.242
Housing	0.18	2.928	0.478	0.63	0.903	0.102
Fuel and light	0.19	0.906	0.183	0.24	0.780	0.108
Household durables						
(week)	0.17	0.919	1.183	0.05	1.799	0.607
(4 months)		1.314	0.246 (year)		1.798	0.562
Household operation	0.12	0.577	0.178	0.16	0.562	0.163
Clothing and footwear						
(week)	0.70	1.343	0.277	0.45	1.061	0.130
(4 months)		0.696	0.035 (year)		0.981	0.194
Medical care	0.32	0.488	0.395	0.16	0.562	0.163
Personal care	0.12	1.140	0.171	0.11	0.932	0.190
Transportation	0.12	0.987	0.264	0.12	1.778	0.283
Recreation and reading	0.13	2.652	0.388	0.09	1.613	0.270
Cycle purchase and repair	0.10	1.975	0.986			
Subscriptions	0.01	1.689	0.676			
Education	0.11	1.184	1.089	0.33	1.769	0.159
Gifts and contributions	0.15	3.264	0.541			
Other expenses	0.13	1.367	0.725			
Total Expenditure	5.42			4.91		

[a] Weekly expenditure except where otherwise stated.

The estimate of elasticity for all food expenditure appears the most reliable, the regression coefficient being large in relation to its standard error and the values obtained in the two territories being reasonably consonant with each other and with the results obtained elsewhere. It is worth noting that the value obtained for Barbados (0.85) exceeds that for British Guiana (0.66) by more than three times its standard error, suggesting a real difference in the income elasticity of food expenditure in the two territories. When food expenditure is broken down into sub-classes considerable differ-

ences appear, the elasticity for meat, dairy products and beverages being higher in British Guiana than in Barbados, and that for cereals and fruit being lower (Table 2). The low elasticity for cereals may plausibly be connected with the importance of cheap local rice in the Guianese diet at all income levels.

TABLE 2. MEAN EXPENDITURE AND ELASTICITY WITH RESPECT TO TOTAL EXPENDITURE, PER CAPITA, BY SUB-CLASSES OF FOOD EXPENDITURE: BRITISH GUIANA 1956 AND BARBADOS 1951-2.

	British Guiana 1956		Barbados 1951-2	
	Mean Expenditure ($)	b	Mean Expenditure ($)	b
Meat	0.26	2.056	0.38	0.984
Fish	0.29	0.642	0.23	0.708
Cereals and bakery products	0.59	0.459	0.51	0.554
Milk products and eggs	0.24	1.939	0.35	1.007
Oils and fats	0.18	0.350	0.12	0.691
Fresh vegetables	0.09	1.063	0.16	0.892
Starchy vegetables	0.17	0.621	0.15	0.558
Fruit	0.16	0.652	0.05	1.720
Sugar, sweets, etc.	0.10	0.588	0.17	0.382
Non-alcoholic drinks	0.11	1.226	0.16	0.986
Other food for home consumption	0.19	0.675	0.06	1.092
Meals taken away from home	0.14	3.063	0.12	1.561

The weakest of the major items are those based on data representing major expenditures at long intervals. Thus expenditure on housing in British Guiana shows a suspiciously small absolute magnitude and a high elasticity with a large standard error. The data used were the actual rents paid for hired houses and the actual expenses of owner-occupiers and of those living in free quarters. The effect of the inclusion here of the imputed value of free housing is discussed below. The estimate for Barbados, being based on actual rents for hired houses and imputed rents for others, avoids the pitfalls involved in an attempt to record on a weekly basis items which in practice occur only at longer intervals.

For Barbados estimates of the elasticity of expenditure on household durables have been made on a weekly and also on an annual basis. These agree so nearly that the estimate must be given some weight in spite of a large absolute standard error. The estimate for British Guiana based on weekly data only is clearly not trustworthy, but the estimate based on the expenditure over a four-month period comes very close to that for Barbados.

Expenditure on medical care presents problems rather similar to those of housing expenditure; not only is it an infrequent item for any one household, but it may be obtained free or at subsidized rates in both the territories. No great weight can be attached to the fact that its income elasticity appears higher in Barbados than in British Guiana.

There remain estimates of elasticity for seven non-food items on which some reliance can be placed. These are alcohol and tobacco, fuel and light, household operation, clothing and footwear, personal care, transportation,

recreation and reading. Alcohol, tobacco, clothing and recreation show elasticities greater than unity in both territories, and household operation, fuel and light show elasticities less than unity in both, while the evidence for the other two is conflicting. In the case of personal care the difference is not great, while in the case of transportation it is not hard to see why a real difference should exist between a small country with excellent roads and bus services such as Barbados and a large country like British Guiana in which these amenities are less common. The estimated elasticity for clothing expenditure on a weekly basis is appreciably higher in British Guiana than in Barbados, but the estimates based on four months is closer to the Barbadian figure.

The items which end Table 1 (subscriptions, gifts and contributions and miscellaneous expenses) are small in amount and irregular in incidence, and their analysis does not yield satisfactory results. The same is true of education, on which the lowest income groups in both territories spent nothing, though the social expenditure attributable to the education of their children is of course considerable.

So far the two sets of estimates are reasonably consonant with each other and with similar data relating to other countries, with the limitations already mentioned. We may ask at this point whether the estimates reflect any special features of the West Indian environment. For example, are they affected by the strong seasonal fluctuation in incomes which is found in both Barbados and British Guiana, springing from the variation in labour demand of the sugar industry between the harvest season and the rest of the year?

The Barbados data, as already mentioned, show the distribution of expenditure for the same households at two seasons. When expenditure on each of the principal classes is plotted against total expenditure there is no sign of a systematic difference between the seasons. Minor differences occur in food and clothing expenditure, but these can be explained in terms of special factors not associated with the annual fluctuation in incomes — some types of food are in better supply at one time than at another, while clothing expenditures tend to be concentrated at Christmas and New Year. The most striking fact, however, is that the households in the sample maintained their expenditure constant over the two seasons, as Straw had already pointed out, though recorded incomes in the crop season were some 40 per cent greater than in the "hard times." Unfortunately no seasonal analysis of the Guianese data is possible.

Since the West Indies are far from being culturally homogeneous societies, it is reasonable to ask whether different groups display different patterns of consumption. In Barbados the most useful practical differentiation of the population would appear to be an occupational one. The sample households were separated into three groups according to whether the head of the household followed a white-collar, a skilled or an unskilled occupation. For this purpose domestic servants were classed as unskilled and production

workers as skilled. The regression of expenditure by classes on total expenditure was plotted for each occupational group. For food expenditure the observations for all groups fell very close to the same regression line. For most non-food classes the scatter of the observations was too great to permit a positive conclusion, but at least no evidence appeared of systematic differences between groups. The exception was clothing expenditure; the white-collar and skilled groups showed elasticities of 1.140 ($s_b = 0.311$) and 1.196 ($s_b = 0.441$), while the unskilled group showed an elasticity of 3.224 ($s_b = 0.618$). It is not hard to find a possible explanation for this; for the upper occupational groups the standard of clothing demanded by convention is relatively uniform no matter what the income level, while the poorest grades of unskilled workers are able to restrict their clothing expenditure by using cast-offs (which many domestic servants receive as a matter of course) and by wearing their work clothes to the point of disintegration. The lack of differentiation between groups for other expenditure classes would appear to suggest that in Barbados, at least, any cultural differences between classes are not of great importance to problems of consumption economics.

The Guianese data were not classified by occupation, so that the procedure used for Barbados cannot be applied there. It is possible to estimate elasticities for two types of district which differ sharply in occupational make-up, and so to obtain some indirect evidence on occupational differences (Table 3). In the urban area 26 per cent of households for which the head's occupation was recorded belonged to the white-collar group, 41 per cent to the skilled group and 33 to the unskilled; in the sugar areas, the corresponding percentages were 6, 18 and 76. We may therefore expect that differences between the two types of area will be at least indicative of differences between the white-collar and skilled groups on the one hand and the unskilled on the other.

We must, however take account of certain special factors which tend to create differences independently of the main occupational groupings. The households in both areas receive non-money incomes (amounting to about 10 per cent of total incomes) which are not included in the expenditure data on which the elasticity estimates are based. In the urban area the main non-cash items are the free meals of domestic servants and unspecified free items in which clothing is probably an important element. In the sugar areas the main non-cash income appears as home-grown food and as rent-free quarters provided for estate labourers. Since non-cash food income accrues mainly to the lower income groups, we shall expect the elasticity of food expenditure to be biased upward. The same is true of clothing expenditure. The free housing provided in the sugar areas, on the other hand, is available to most of the income range covered by the survey, and the scope for sugar workers' households to expand their housing expenditure is limited by social attitudes and by the plantations' control of building land; so that

TABLE 3. MEAN EXPENDITURE AND ELASTICITY WITH RESPECT TO TOTAL EXPENDITURE, PER CAPITA, BY EXPENDITURE CLASSES: URBAN AND SUGAR DISTRICTS, BRITISH GUIANA, 1956.

	Urban Districts			Sugar District		
	Mean Expenditure ($)	b	S_b	Mean Expenditure	b	S_b
Food	2.99	0.639	0.050	2.53	0.598	0.268
Alcohol and tobacco	0.28	2.649	0.666	0.43	0.651	0.498
Housing	0.28	2.919	1.037	0.07	−0.343	2.663
Fuel and light	0.23	0.809	0.304	0.20	0.248	0.492
Household durables	0.07	−0.214	1.386	0.17	0.196	3.359
Household operation	0.13	0.998	0.339	0.12	0.747	0.424
Clothing and footwear	0.63	1.079	0.324	0.54	2.148	1.101
Medical care	0.35	0.637	0.612	0.23	0.829	1.946
Personal care	0.14	0.862	0.479	0.12	1.796	0.674
Transportation	0.08	2.106	0.479	0.08	3.211	1.235
Recreation and reading	0.15	2.737	0.710	0.14	2.119	1.586
Subscriptions	0.01	3.808	0.992	0.01	5.242	2.767
Education	0.10	1.761	1.287	0.12	2.202	2.662
Gifts and contributions	0.21	2.235	0.609	0.07	3.236	1.985
Other expenses	0.17	2.144	0.909	0.15	1.492	1.836
Total Expenditure	5.68			5.42		

we should expect the relation between income and housing expenditure in the sugar areas to be weak.

In fact on the basis of the regression coefficients shown in Table 3 we should conclude that the relation between housing expenditure and total expenditure is strong in the urban areas ($b = 2.919$) and weak in the sugar areas ($b = -0.343$). Clothing expenditure, in spite of the bias we have mentioned, appears less responsive to differences in total expenditure in the urban areas ($b = 1.079$) than in the sugar areas ($b = 2.148$). The estimated elasticity for food expenditure differs only slightly between the two types of area. The consumption of alcohol and tobacco is heavier in the sugar areas, but less responsive to differences in total expenditure; this may be connected with the availability of cheap "bush" rum in the sugar districts. However, the evidential value of such differences in elasticities is very slight, since in the sugar areas there are only three classes of expenditure for which the regression coefficient differs significantly from zero, while there is only one class of expenditure – on alcohol and tobacco – for which the difference in the regression coefficients between urban and sugar areas is as much as twice the appropriate standard error. There is no reason in principle why comparisons between areas of sharply different occupation composition should not throw light on occupational differences in expenditure patterns, and one may suspect that more intensive interviewing in the present case would have reduced the scatter of the sugar area data somewhat; but one must conclude that while the data in Table 3 do not contradict the idea that in British Guiana, as in Barbados, occupational differences in expenditure patterns are small, yet they equally do not exclude the possibility of such differences existing.

The estimates of expenditure elasticity given in Tables 1 to 3 relate to cash expenditure only. In Barbados non-cash income is of little importance, but in British Guiana it is substantial and it seems desirable to explore the effect of recalculating the estimates most affected so as to include the estimated value of income received in kind in total expenditure and in expenditure on each item (Table 4).

TABLE 4. ELASTICITY WITH RESPECT TO TOTAL EXPENDITURE FOR SELECTED EXPENDITURE CLASSES: BRITISH GUIANA, 1956, EXCLUDING AND INCLUDING INCOME IN KIND

	Cash		Cash and Kind	
	Mean Expenditure ($)	b	Mean Expenditure ($)	b
Food	2.53	0.662	2.90	0.541
Fish	0.29	0.642	0.30	0.514
Cereals	0.59	0.459	0.72	−0.056
Milk products and eggs	0.24	1.939	0.31	1.356
Fresh vegetables	0.09	1.063	0.12	0.669
Roots and starchy vegetables	0.17	0.621	0.18	0.408
Housing	0.18	2.928	0.21	1.865
Fuel and light	0.19	0.906	0.23	0.613
Medical care	0.32	0.488	0.36	0.520
Total Expenditure	5.42		5.95	

Four major expenditure classes are seriously affected. In the case of food, housing and fuel and light the effect of the recalculation is to reduce the elasticities substantially. In the case of medical care the elasticity is slightly greater on the new basis. The reduction in elasticity is particularly marked in the case of the food groups shown, the estimate for cereals being changed from 0.459 to −0.056. The generally lower elasticities of the expenditure classes shown in Table 4 on the revised basis implies that some, at least, of the remaining expenditure classes, in which non-cash income is of little importance, would show a higher elasticity if related to total (including non-cash) expenditure than is given by Table 1.

In both territories the surveys on which our analysis is based recorded income and savings. It is therefore possible to calculate the regression of total expenditure on income for each sample, as well as for each occupational group in Barbados and for the urban and sugar areas in British Guiana (Table 5). The elasticity of total expenditure on income (excluding non-cash transactions) is found to be 0.660 for Barbados ($s_b = 0.026$) and 0.378 for British Guiana ($S_b = 0.067$). In Barbados it varies with occupational grade, white-collar occupations showing a high and unskilled occupations a low elasticity; in British Guiana it is significantly higher for the urban than for the sugar areas.

Since accurate data on the relation between savings and incomes are notoriously difficult to obtain, it is natural to ask what reliance can be placed on these results. On general grounds one would be inclined to distrust them; the difficulties which stand in the way of the collection of accurate data in Europe and North America should be even more formidable

TABLE 5. ELASTICITY OF TOTAL EXPENDITURE WITH RESPECT TO INCOME, FOR OCCUPATIONAL GROUPS: BARBADOS 1951-2, AND FOR DISTRICTS, BRITISH GUIANA 1956.

	Regression Coefficient	S_b
Barbados:		
White-collar workers	0.854	0.043
Skilled and semi-skilled workers	0.685	0.067
Unskilled workers and domestics	0.359	0.104
All occupations	0.660	0.067
British Guiana:		
Urban districts	0.440	0.069
Sugar districts	0.133	0.052
All districts	0.378	0.026

in the West Indies. On the other hand, there are a number of reasons why these general arguments can be discounted in the case of Barbados. It is a highly literate community, unlike most of the West Indies, and one in which systematic saving and dissaving is familiar to the working-class because of the marked and predictable annual fluctuation in incomes. Close examination of the original schedules has persuaded me that they are free from gross errors. It is possible to make some check on the accuracy of the aggregate income and expenditure figures in two ways. First, they may be blown up to give an estimate of personal incomes which can be compared with the corresponding magnitude in the national accounts, arrived at independently by Siffleet *(3)*. Allowing for the fact that the survey underrepresents incomes from business, the agreement is good, as Straw pointed out in his original article. Secondly, assuming that private savings in an economy of the type with which we are concerned are likely to be zero or close to it, we can test estimated annual income against estimated annual expenditure; here again Straw has shown that the results are satisfactory. It would appear to be justifiable to place some trust in the results of the Barbados survey so far as the relationship between expenditure and income is concerned.

The quality of the income data from British Guiana would appear to be much inferior. The very substantial discrepancy between reported expenditure (including savings) and reported income for most income groups is set out clearly in Table 10 of the original report. Over the whole sample reported expenditure exceeds reported income by 9 per cent, the excess being proportionately greater in the lower income groups. It seems probable that incomes were underestimated, and particularly by the poorer households and by the unskilled; the magnitude of the underestimate did not vary greatly from district to district.

It is possible to compute the elasticity of total expenditure on reported total expenditure-plus-savings, which may well be a more reliable guide to income than the income response itself. On this basis the elasticity of total expenditure on income is raised from 0.378 to 0.491 ($s_b = 0.036$). This still differs substantially from the estimate for Barbados. But it must be remembered that the Guianese sample was more heavily weighted to-

ward the working-class household than the Barbadian. If the elasticities computed for the three occupational groups for Barbados are weighted by the number of households in the corresponding groups in the Guianese sample we obtain an estimate of 0.529[a], which is very close to the previous estimate. The apparent difference between the income elasticity of total expenditure in Barbados and in British Guiana may therefore be less important than it appears at first sight.

The estimates of the elasticity of total expenditure in the urban and sugar areas of British Guiana are even more precariously based than those for the whole sample. Since neither mean income nor savings by income group was available for these areas separately, the elasticity has been calculated as the regression of expenditure on the midpoint of the income intervals. The level of the regression coefficients is therefore not of great significance. On the other hand, the fact that the urban coefficient greatly exceeds that for the sugar areas may be taken as some slight confirmation of an occupational difference similar to that found in Barbados.

One's view of the significance of the results arrived at above must depend on an assessment of the reliability of the basic data and the adequacy of the statistical manipulation. It has already been mentioned that for the present purpose both have serious though unavoidable defects. Under the first heading we must include the instability in such items as housing, expenditure on durables and other occasional expenditure, which probably reflects the limitations imposed by the small sample size. Under the second head, the use of group means to calculate regression is only one of the statistical approximations whose use was enforced by the lack of computing resources. Though the analysis has shown a rather high degree of consistency between the two sets of data, it must remain uncertain how far the consistency in the measures used reflects biases common to the conduct or analysis of both surveys, rather than common features of consumer behaviour.

Nevertheless some features of the results would appear to be important enough to warrant a discussion of what the implications will be if they are substantiated by further data from the same area. The first point which calls for comment is the degree of similarity in consumption patterns, so far as our results go, between Barbados and British Guiana and between different groups within these territories. Considerable stress has been laid by some anthropologists on the cultural differences within the West Indian territories, until the economist has been forced to ask himself whether any study of economic behaviour which did not distinguish between culturally different segments of the population was likely to have any validity. Our data relate to two communities, in one of which (Barbados) there is reason to expect any cultural differences to be correlated with occupation, while in

[a]That is, a weighted average of the three values of b shown for Barbados in Table 5, with weights proportional to the number of households in each occupational group in the Guianese sample, is 0.529. The value of b in a hypothetical population with the Guianese occupational distribution and the Barbadian relation between mean and total expenditure within income groups cannot be more exactly calculated from our data.

the other there is good evidence for cultural difference between the mainly Indian population of the sugar areas and the mainly creole or creolized population of the urban area. Yet such differences as have emerged from the analysis of expenditure patterns can be very plausibly explained in terms of orthodox economic variables such as incomes and relative prices, or of those social variables (such as the importance of non-cash income) which are already familiar to economic analysis. There is no evidence that the usefulness of the analysis would be improved by introducing the highly intractable concept of cultural variation.

The other striking feature of the results obtained is the generally low value of the income elasticity of total expenditure and the suggestion that it is lower for the unskilled wage-earner than for the white-collar worker. This relationship has usually been studied in a context where the marginal propensity to consume is, or at least appears to be, negatively correlated with income, and in which it can be maintained that the highest incomes are also the most variable. The recent controversy over Friedman's permanent income hypothesis, for example, has taken place against this background. Our results point to a situation in which the marginal propensity to consume is high for high incomes. Moreover, there is evidence that the variability of incomes over time is considerably less in these high income groups (which correspond to our white-collar grouping) than among the unskilled. In Barbados, for example, it was shown by an employment survey in 1955 *(1)* that the seasonal fluctuation in incomes affected principally the unskilled workers, while white-collar incomes were roughly constant over the year. If these results are substantiated they should surely make some contribution to the problem of the empirical validation of competing theories of the consumption and savings functions.

These results also have a bearing on the problems of economic growth in underdeveloped territories. The average propensity to save in such countries is generally low, and it is often assumed that the marginal propensity is also low. The cross-section estimates of the elasticity of expenditure on income suggest that in the two territories we have studied the opposite is true. In considering the effect on local industries of a general increase in incomes it is important to know which proposition to accept. In very much simplified terms, if the income elasticity of consumption expenditure is low, consumer goods industries are likely to be limited by the sluggishness of demand for their products; if the elasticity is high, they will have a buoyant market but local savings will not be able to contribute to their financing. It can be argued that the former situation will tend to maintain stability at a low income level, while the latter, given a supply of mobile investment capital, will be favourable to cumulative expansion or contraction.

While this argument need not necessarily be accepted, it points again to a way in which the widening of the range of situations from which empirical data can be drawn may help in the advancement of general economic theory.

References

1. CUMPER, G. E. (1959) "Employment in Barbados", *Social and Economic Studies*, Vol. 8, No. 2. University College of the West Indies, Jamaica.
2. Ministry of Labour, Health and Housing, British Guiana (1957) *Survey of Family Expenditure*, 1956. Georgetown.
3. SIFFLEET, N. M. (1953) "The National Income and National Accounts of Barbados . . ." *Social and Economic Studies*, Vol. 1, No. 3. University College of the West Indies, Jamaica.
4. STRAW, K. H. (1953) "A Survey of Income and Consumption Patterns in Barbados", *Social and Economic Studies*. University College of the West Indies, Jamaica.

BOOK REVIEWS

The Family and Population Control. By Reuben Hill, J. Mayone Stycos and Kurt W. Back, Chapel Hill, The University of North Carolina Press, 1959.

While many countries have been the subject of the rising tide of books dealing with the so-called population problems facing the developing and underdeveloped economies, Puerto Rico has, for a number of reasons, received ample attention in this context. Its unique geographical and socio-political position *vis-a-vis* the United States has made it a social laboratory beckoning to social scientists. Many scholars who turn their attention to present day problems of this island either deliberately set out to study some aspect of its population growth or inevitably find their work ultimately impinging at some point on the demographic front.

The authors of this work, Reuben Hill, J. Mayone Stycos and Kurt W. Back, have with a number of other social scientists been engaged since 1951 in a series of research projects aimed at illuminating one of the fundamental components of population growth in Puerto Rico — high fertility. A number of studies based on these researches has already appeared. The present work is evidently the culminating study of this long-range research. It is a novel and very important contribution to the literature on fertility. Its arguments are well integrated, it is interestingly written and throughout the authors exploit a rigorous methodology.

The three sets of sample surveys furnishing the material around which most of the study is organized are all deliberately limited to lower classes. The first sample, used in the exploratory phase of the analysis, was randomly selected from the files of the Tax Assessment Bureau, those selected having houses valued at less than 250 dollars. For the second or quantitative verification phase of the project the material required is derived from a series of samples, some representing women attending health clinics. For the third, experimental phase, a pre-determined number of families of each of four types of villages was drawn.

Much of the analysis is organized around a thesis which may be summarized as follows. Population growth is predominantly the result of continued high fertility. To a large degree fertility levels of the population is a function of prevailing ideals of family size. Large family ideals or indifference to the question of family size set the stage for high fertility. On the other hand prevalence of small family ideals induces people to have smaller families. However ideals by themselves do not suffice to control family size, in view of the factors, both motivational and social, involved in the fertility complex. The translation of ideals into behaviour patterns is furthered or retarded by what the authors term "facilitating mechanisms".

These are of four kinds. Intellectual facilitation connotes a general awareness of means of controlling family size. Clearly such means cannot be used unless they are readily available: hence the relevance of the second order of facilitation, physical facilitation or the general accessibility of means of controlling fertility in the society. Even if these two conditions are fulfilled, however, psychological barriers may preclude the effective use of birth control measures. Only if the available means are acceptable to the population will they be used; hence the importance of the third kind of facilitation, psychological facilitation. The fourth aspect — sociological facilitation — is an important thread running throughout the study. This covers the interaction patterns between the spouses — communication of views on family size and agreement between the partners on such matters — which conduce the family unit to control the number of its offspring.

Both the foregoing thesis and the fact that the entire study is oriented towards programmes of action for fertility control make inevitable the choice of "the nuclear family of procreation" as the unit of study. The authors claim, "A first step in investigating the population problem while assuming a practical result is to rephrase the phenomenon of over-population of the island in family terms — the pressure of numbers of children upon the resources of individual families" (p. 24). In a "psychological sense", they claim, the families of Puerto Rico are over-populated. The exploration of the factors of over-population and the possibilities of fertility control through the unit of the family is in essence a psychological approach to the problems of high fertility. Consequently the authors lean heavily on the approaches and concepts of social psychology.

The book opens with a discussion of the principal features of the demographic and economic changes noted in the island. Traditionally considered a country of steeply declining mortality and high fertility, evidence of declines in the latter has been accumulating, though at the time of writing this decline was not "a major or permanent trend". The important role of emigration to the United States, both as a demographic variable and as a factor in economic change is emphasized. As a consequence of a highly successful programme of economic development — successful largely because of the special associations with the United States — Puerto Rico has come to be regarded as "the economic show piece of the Caribbean". Still marked inequalities in income distribution persist, to such an extent indeed that it is doubtful whether *per capita* income rises have reached the lower income brackets of the population.

Chapter 2 discusses the various stages of the research project, while Chapter 3 considers the background, social and economic, of the family types appearing in the survey, and of their basic characteristics as revealed in the data collected. One point of significance concerns marital relations. While the overall impression is "that of harmony and high agreement", the modesty of the wife and her respect for her husband tend to limit communication between the spouses on intimate family matters.

In view of the thesis of the authors, family size preference, dealt with in Chapter 4, assumes great significance. A surprisingly large number of women were indifferent to the question whether they wanted more children than they already had. But despite this it is contended, "the small family, if only in terms of wishful thinking, is a value shared by different classes in the society. Deviation from this ideal may reflect only a reaction from or rationalization of the actual family size" (p. 74). In their claim that the discrepancy between size of family preferred and size achieved can be explained "by the absence or ineffectiveness of any of the facilitating mechanisms" (p. 74) the authors seem to read too much into the significance of declared family size preference. An ingenious scheme of questioning is invoked to check the consistency of attitudes towards family size preference, but these seem to presuppose a degree of comprehension of the nuances of language which one finds difficult to associate with the low income groups embraced by the study.

As the authors note, relating current family size preference to (past) fertility performance has obvious limitations, but do the retrospective questions which they elect to use carry any greater weight? Recall lapses, so potent a limiting factor in studies of demographic variables, may play an even greater part in the analyses of attitudes . Moreover, a special limiting factor of the present retrospective data is the large proportion of women (about half) who admit that they gave no thought to the matter of family size preference. The seeming weakness of the link between current family size preference and fertility led the authors to use instead the preference supposed to be held at earlier periods, at the time of their marriage in fact. One result of their analysis should be considered. It appears that those women who wanted large families at marriage actually achieved relatively small families. The authors attempt to explain this as follows. Women who at marriage have preferences for large families find themselves with numerous children early in marriage and, even though they are late in initiating birth control measures, when they do decide to do so they elect to use a method that admits of no error, such as sterilization. This, it is urged, accounts for the fact that women professing large family ideals at marriage show a high probability of eventually adopting sterilization. This is plausible, but resort to data on spacing of births would have settled the question.

The facilitating mechanisms are examined in detail in Chapter 5. According to the authors' findings, knowledge of birth control methods is much more widespread than is generally asumed: only 6 per cent of their sample of women confess to complete ignorance of the subject, and as is to be expected the better educated the woman is the greater the number of birth control methods about which she has some knowledge. The most effective methods, the condom and sterilization, are known to 85 per cent of the women: these are the methods earliest learned. A substantial proportion of women (30 per cent) are acquainted with some method of contraception

before marriage. Here, as indeed, throughout the study, great emphasis is placed on poor communication between the spouses on the subject of birth control.

Awareness of birth control methods does not ensure their use; such devices will be used only if they are psychologically acceptable to families. This question of acceptability is dealt with in an interesting section on "psychological facilitation". In a predominantly Catholic society one may be tempted to expect that religious affiliation dictates the objections to the use of contraceptive devices. But there is little evidence of this: Catholics are no less likely to practise birth control or to express attitudes favourable to their use than are non-Catholics. The authors suggest that religion is taken more seriously by non-Catholics who, as recent converts, tend to be more conservative.

What are called "patterns of marital interaction" play a prominent role in determining family size. Once more communication between spouses enters the picture. Most of the younger wives have discussed family size preferences with their partners more advanced in years. This difference is clearly associated with the higher educational attainment of the younger spouses. Complementary to this "feeble or ambiguous" communication between spouses is the large extent to which each fails to perceive correctly the other's attitudes towards family size and kindred matters.

The incidence of birth control is studied in Chapter 6. From the sample it appears that about 41 per cent of the population practise or have practised birth control, the proportions doing so being much higher for urban than for rural areas, and for those with the highest education. Sterilization figures prominently in the methods used, in many cases it is the first method used. While the incidence of this method rises with education in rural and in urban areas, the incidence of natural methods declines with advances in education. It does not appear that contraceptors have families differing markedly in size from those of non-contraceptors, the general ineffectiveness of birth control measures resting probably on the relatively late age at which women tend to utilize them. Special attention is paid to the popularity of sterilization. It is true that this tends to be employed rather late in life, but this may well be evidence of its recent introduction into the island. The widespread knowledge of *la Operación*, as it is commonly known, in a country where communication about sexual matters is so poor stems largely from the fact that it is the only birth control method which can be discussed without reference to the sex act or to sexual organs. No doubt also its once-for-all nature and its manifest effectiveness help to ensure its popularity.

The authors next proceed to a convincing analysis of their data on fertility control by considering the relation between two typologies they set up and certain study variables. The first typology arrays the families in eight types, ranging from the least accessible to new ideas to the most accessible: geographical location, marital status and education constitute the basis of

this typology. This array is strongly correlated with fertility. But, contrary to expectation, the more conservative types prefer smaller families than the less conservative. As urbanity increases, however, communication between the spouses becomes more significant, the indication being that modesty greatly impedes communication.

The second typology rests on three "components of familism". The first of these measures the wife's autonomy in terms of whether or not she is gainfully occupied; the second is the wife's subjective assessment of her spouse's dominance over her; the third covers the husband's general control over his wife. Of the many interrelationships sought between the typology and other survey variables two may be noted. First the more restrictive the family organization the later the family tends to perceive family size as a problem of control. Secondly, familism is strongly related to high fertility, inadequate fertility control and lack of success in the use of birth control measures.

Analysis of the data is pushed further in Chapter 8, which uses correlation and factor analysis to assess the levels of proneness to action (in controlling fertility) and the degree to which these are successful in controlling fertility. The authors describe their model as "a beginning schema which interrelates independent, intervening and dependent variables singly and by blocks" (p. 219). Demographic variables are related to fertility performance by means of four intervening variables. The correlation coefficients are in general very low, but some of the associations which seem to be established are worthy of note. One interesting point is that the limitation of the study to low income group families means that there is no marked association between level of income or education and level of fertility. Once more the authors are able to pinpoint the importance of communication in family life generally and in the planning of family size in particular. Modesty appears as an element in the establishing of weak communication between spouses. One of the purposes of the factor analysis is to determine whether all questions used in the study of the correlates of fertility are adequate measures of the variables used. Further they postulate "a factor analytic model of fertility dynamics", which seems to emphasize the importance of communication as a vehicle through which many other variables apparently attain control over fertility.

Part IV of the work is devoted to an experiment designed to study the variables which according to previous findings largely influence fertility. The experiment had also practical aims, "to test ways in which different types of possible programs could be introduced inconspicuously within the framework of existing agency facilities" (p. 253). Theoretical considerations lead to the selection of three groups of variables, ideal family size and planning representing value; communication representing family organization; knowledge of contraception representing information. The persons drawn into the experiment are thrown into four groups, broadly indicative of their readiness to use birth control methods: Ready, Uninformed, Inefficient, Op-

posed. The effects on these various groups of pamphlets and meetings discussing birth control show definitely that the ready respondents are those most strongly influenced. Of the non-users of this group 70 per cent of those subjected to pamplet approaches responded, while 43 per cent of those subjected to meeting discussions began using birth control methods. Arguing that fertility performance during the year following the experiment is an indication of the effectiveness of the programme, the authors find that the opposed groups have been strongly influenced, but this is not immediately apparent from Table 132. In any event one year is much too short a period within which to assess the effectiveness of the experiment in terms of fertility performance.

The experiment throws further light on communication, agreement and empathy, on which the authors lay so much stress. In general sharing or pooling of knowledge makes for greater and more persistent use of birth control. Agreement between spouses in favouring small families is associated with the use of birth control measures, but there is some suggestion that it is the wife's attitude that is dominant here.

In the concluding part of the work the implication of the findings for policy are discussed. The general argument runs as follows. The modest results so far achieved by family control clinics in Puerto Rico stems from three factors, male centredness of Puerto Rican families, modesty of the women and the "respect barriers between husband and wife". If a "crash" programme of fertility control is desirable, it is not sufficient to ensure the facilitating mechanisms stressed earlier in the study. Some precipitating factors are called for. The techniques of pamphlets and meetings which formed the basis of the experiment should prove adequate, as well as mass communication on the subject. But whatever technique is relied on the appeals have to be persistent. The authors go on to consider the administrative action necessary to get a crash programme in operation. In view of what Operation Bootstrap has achieved in the field of economic development, it seems safe to argue that similar efforts to centre attention on family planning and to provide for its effective inauguration by the Government will meet with success. Their arguments are generally convincing, though there is always the possibility that unanticipated social changes will necessitate a recasting of such a programme.

Two aspects of this study call for further comment. In the first place, in view of the central part played by family size preference in the analysis a closer look must be taken of the basic material collected on this subject. Data on family size preference can no doubt lend greater realism to assessments of fertility trends and to population projections. Moreover, in more sophisticated societies, such as that of the United States, family size preference may constitute a measure of "family size objectives", but can material of this nature be as safely used for the same purpose in a population half of whose members give no serious thought to the matter and in which communication between spouses about sex and family limitation is so poor? Since so many

women seem to be "subject to contradictory norms or to an absence of norms" at the time of interview can we place great confidence in their declarations about what family size preference they claim to have held at the time of their marriage? Indeed inconsistency should be much stronger in the case of attitudes supposed to have been held many years previous to the interview.

Secondly something should be said about the tone which pervades some parts of the work. Clearly studies in terms of behaviour patterns of individual families have considerable methodological advantages and, as the present work exemplifies, provides many valid insights into fertility. But there are limitations to small-scale sample surveys of this kind which cannot be ignored. In particular very seldom can they give indications of social developments which may markedly alter patterns of family behaviour and so disturb the most carefully established causal analysis. In the present instance the study data could not forecast the magnitude of the changes which the predominantly male exodus to the United States would have on Puerto Rican society. By drawing females from home into office and factory, emigration has by itself drastically curtailed the male centredness of the family which the authors rate as a powerful component of high fertility. While failure of the study material to indicate developments of this order does not necessarily impair the validity of the analysis it lends a measure of unrealism to the language of confident assurance which too often the authors invoke in developing their arguments. However elegant the methodology used, however confident the authors may feel about their findings, they have always unfortunately to reckon with the tentative nature of all fertility analysis.

But these are minor criticisms of a study which, by virtue of its skilled analysis and wealth of seminal hypotheses, remains indispensable to students of human reproduction.

Trinidad G. W. Roberts.

School and Community in the Tropics. By T. R. Batten, O.U.P. 1959, 12/6.

Mr. Batten's careful study of what he describes as "recent attempts in many tropical countries to bring the work of the schools more closely into line with local community needs" is very clear and somewhat provocative. The recent attempts cover the period of rapid change since the end of the war. Unfortunately, he cites little evidence from the West Indies. He confines most of his attention to India, Bolivia and the Amerindians of the United States, for in all these areas many experiments have been made.

But the value of the book does not lie in the amount of evidence given of these experiments, nor which districts they cover, though the facts given are very illuminating and clinch the argument. Rather the value of the book lies in its challenge to think again of the relation of School to Community, particularly in the rapidly developing countries of the world, the tropical areas to which Mr. Batten has confined his attention.

For what does the school exist? The answers vary: i) to give a traditional training in purely academic subjects, mainly the three R's; ii) to prepare children for life in their own community; iii) to prepare children to be pioneers of new ways of living in their own community.

If the first objective is sought, then there is little relationship between what the children learn and what are their own urgent needs, save the one overwhelming need to escape from the drudgery which a failing economy perpetuates in remote rural areas. So School and Community remain separated and unrelated. But the school has prestige in the eyes of the parents and any change in curriculum is met with opposition.

If the second objective is sought, then the school is but the handmaid of outworn unproductive ways of living, and so of what use is it to the community? There is little incentive to send children to school in such a situation.

If the last objective is sought, then the school must win the support of the progressive members of the community, and, together, school and community can go forward. But if such co-operation does not occur, then the school is facing the well-nigh impossible task of preparing children for life in a community that does not yet exist.

Mr. Batten has shown that all these dangers exist, that these fundamental problems underlie the great educational experiments that are being tried out in a great many tropical areas of the world.

There are some valuable chapters on the teacher in the community, community service projects, curriculum and method, and an excellent section on the training of teachers for this work. Mr. Batten summarizes his investigations in a wise conclusion:

> *No teacher or educational administrator can establish a community school, except in name, by making decisions and using his authority. A school becomes a community school, in fact as well as name, only to the extent that people support it because they come to agree with what it is trying to do.*

For West Indians the same problems are present. The dangers are here. The book is a sound introduction and something of a warning to all those seeking to know and seeking to promote educational programmes in the emerging societies of the various territories. Traditional education in the West Indies, as elsewhere in the tropics, was designed for "western purposes" as Mr. Batten calls them. With the removal of colonialism education remains traditional, but now it cannot be regarded as the instrument for implanting an alien culture. The new communities look to their schools to promote men and women to lead them, to do the essential work of the new societies that are being built. Can the traditional education remain unchanged? Can the schools move towards preparing the children for life? If so, what life? The hoped for, planned and improved prosperous countries, with their new techniques of working and living, their new demands for little known skills that generations have regarded as unworthy to be

acquired, or the old uneconomic ways of living, the perpetuation of a way of life that in this modern competing world has no chance of survival? Which is it to be? Or is there another solution as yet unthought that will prove to be the West Indian way of life, which will have the vision to combine the disciplines of the old with the needs of the new world. Mr. Batten's book suggests these queries. He cannot answer them. He gives material on which sound answers may be formulated for the future.

University College
of the West Indies.

Phyllis Doyle.

Notes on Contributors

Peter Newman is Senior Lecturer in the Department of Economics, University College of the West Indies. This paper is the outcome of a visit he paid to British Guiana and Surinam late in 1959.

Margaret Fisher Katzin is attached to the Research Centre in Economic Development and Cultural Change in the University of Chicago. Dr. Katzin spent nine months in Jamaica in 1956/57 collecting research material on the higglers of Jamaica.

M. G. Smith is Senior Lecturer in Sociology in the Department of Economics, University College of the West Indies.

G. E. Cumper is Lecturer in the Department of Economics, University College of the West Indies.